The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees.

VOL. XXXVIII. CHICAGO, ILLINOIS, MARCH 22, 1902. No. 12.

Original Articles.

THE PROSTATE.

JOHN B. MURPHY, A.M., M.D.

Professor of Surgery, Northwestern University, Chicago Post-Graduate School and Hospital, and Chicago Clinical School.

CHICAGO.

In the very recent literature the surgery of the prostate has been given a much deserved prominence. The patient and long suffering of those with prostatic trouble is unnecessary to mention as an incentive to active investigation in this particular field. We believe that the recent procedures have been sufficiently tried to justify their regular performance, and that they give us reasonable assurance of safety to the patient and permanency of relief. It appears to us that it is now a matter of improvement of technic in the operations and a dissemination among the general profession of the importance of the early performance of operative procedures that is most needed. Before citing cases the author takes the liberty of considering the anatomy and physiology of the prostate, as well as the etiology and pathology of prostatic hypertrophy.

ANATOMY.

The prostate is a glandular and muscular body situated in front of the bladder, entirely behind the triangular ligament or deep perineal fascia—See Fig. 1 from Toldt—immediately anterior to and in close contact with the rectum, and completely surrounds the prostatic urethra. It is tunneled by the prostatic urethra, the urethra occupying the second anterior fifth of the space, from before backward.

Five-sixths of the bulk of the normal prostate is behind the posterior level of the urethra—See Figs. 2 and 3. Its greatest fixation is by its attachment to the posterior layer of the triangular ligament. When the ligament is divided therefore, and the prostate freed from it, it permits of considerable latitude of motion. On the anterior surface it is rather loosely attached to the urethra; on the posterior surface it is firmly fixed to the urethra; the mucous lining of its glands and of the ejaculatory ducts and prostatic sinuses are continuations of the mucosa of the urethra—See Fig. 4—so that it is not possible to remove the entire prostate without removing the prostatic portion of the urethra at the verumontanum—See Fig. 2 from Toldt. It is possible to remove the lateral and posterior lobes of a hypertrophied prostate, allowing its isthmus to remain, and retain the anterior portion of the urethra and three-fourths of its circumference—See Fig. 5 from Toldt. The anterior urethra is crescent-shaped, its convexity forward; the posterior surface of the urethra vaults forward into this crescent, the elevation being made up of the caliculus, utriculus, ductus ejaculatorii and the connective tissue surrounding them—See Fig. 5—and the middle lobe behind as shown in Fig. 6.

The middle lobe, in the normal anatomical condition, is a small, bullet-shaped, tongue-like projection from the base of the prostate, posterior to the urethra. It is not a lobe, when compared with the lateral lobes; it is merely a projection in the direction of the bladder from the posterior commissure, between the lateral lobes; and when the lateral lobes and posterior commissure are removed, it is practically detached except from the mucosa, as shown in Case 7.

The gland is surrounded by a distinct capsule—Fig. 5—which is smooth over the lateral lobes, but is depressed into the gland and divided into layers around the vessels in the median line. This vascular area runs parallel with the urethra and directly in the center line. Capsular divisions, therefore, in the removal of the gland should be made over the lateral lobes and parallel with the line of the urethra, that this vascular area may not be invaded until the lateral lobes are decapsulated and prepared for extirpation, and the hemorrhage thus avoided. The seminal vesicles recede from the prostate—See Figs. 3 and 4—along the posterior wall of the bladder and are closely attached to it.

The vesico-rectal peritoneum is a long distance from the base of the prostate, and in subcapsular enucleation its integrity is not in danger of being disturbed.

The arterial supply of the prostate is from the inferior vesical and middle hemorrhoidal arteries. These are subdivided at the inner margin of the capsule into small arterioles, and when the true capsule is peeled off they give rise to little hemorrhage. The veins which form a plexus in the capsule empty into the vesico-prostatic plexus.

The lymphatic supply is meager; the vessels accompany the veinous plexus, and finally end in the internal iliac nodes. The nerves of the prostate are branches of the hypogastric plexus.

In its minute structure the organ is made up of a stroma of connective tissue, smooth muscular fibers and glandular tissue—See Fig. 5. The muscle fibers constitute about one-half of the entire mass of the gland—See Fig. 5—and are continuous with the muscle fibers of the bladder wall above; below they are mingled with a small amount of voluntary muscular tissue derived from the transverse perineal muscles.—(F. H. Gerish.)

The glands are of the branched or tubular variety. They secrete a milky fluid, which at the moment of ejaculation is added to the seminal fluid, and appears to play an important rôle in the motility of the sperma-

tozoa, as without the addition to this fluid, in some of the lower animals, fecundity can not take place.

While in its normal anatomical position the prostate stands in front of the bladder and surrounds the urethra —See Fig. 2—in its hypertrophied condition it has an entirely different relation to the bladder. It normally extends backward onto the bladder only to the sphincter vesicæ internus—See Fig. 7, which shows bladder wall with prostate removed. In its pathologic or hypertrophied condition it incapsulates the neck of the bladder in a cuff-like manner, extending many inches upward on its wall, and often protrudes into the vesical cavity, carrying on its surface the muscularis and mucosa vesicæ; occasionally a pedunculated lobe may be extended through the muscularis and only retain the mucous covering; this, however, rarely occurs except from the posterior lobe. In the normal anatomical condition, the muscular fibers of the prostate are continuous with the muscular fibers of the apex of the bladder wall, but as the prostate enlarges it extends cone-shaped and upward on and around the neck of the bladder, and its muscle fibers in the upper part appear to be distinctly

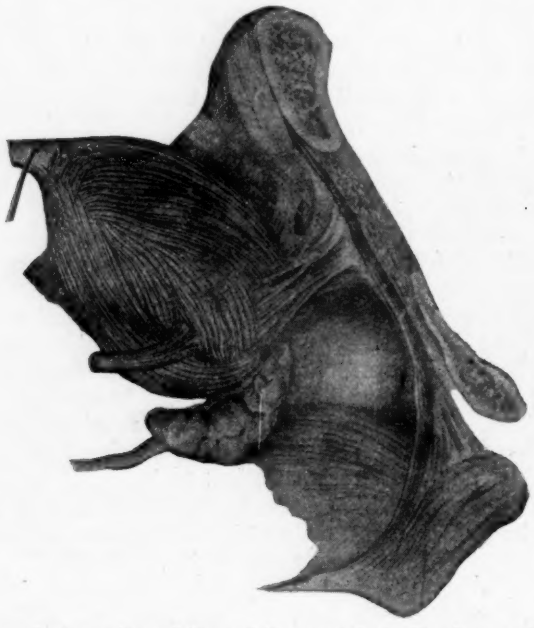


Figure 1 shows the relation of the prostate to the deep perineal fascia, the rectum, the bladder, the seminal vesicles and ureters.

separate, or at least easily separated from the muscle fibers of the bladder. This anatomic relation gives distinct assistance and guidance as to the best method of removal or separation of the prostate from the bladder wall, i. e., at the extreme apex of the bladder it would be difficult to distinguish between the prostatic and bladder muscular fibers, while, if the base of the prostate be exposed, the prostate can be shelled from the bladder wall, from above downward, with ease and with comparative safety to the integrity of the bladder wall, i. e., if we look upon the prostate as a cuff, closely attached at its apex to the bladder wall, and loosely attached at its base, we can see how its lateral lobes can be scrolled or rolled forward with ease, with the assistance of hook retractors, until it reaches the apex attachment, as shown in Fig. 8.

PHYSIOLOGY.

"At the cervix of the bladder the circular layer of muscular fibers is strengthened, and has been supposed to act as a sphincter, with regard to the urethral orifice; it is called 'sphincter vesicæ internus' (at point *a*, Fig. 7). Around the urethra just outside the bladder is a circular layer of striated muscle, which is frequently designated as the external sphincter, or sphincter urethræ."—Am. Text-Book Phys., 1896.

Figure 2.

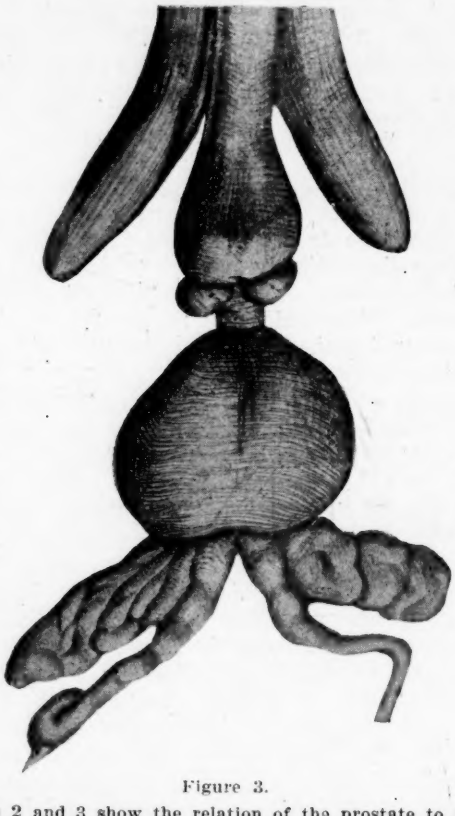


Figure 3.

Figures 2 and 3 show the relation of the prostate to the prostatic and membranous urethra, as well as the relations to the bladder wall and the seminal vesicles.

When the urine accumulates in the bladder, to prevent its escape the elasticity of the parts, aided by the

tonic contraction of the internal sphincter, suffice. This function of the circular layer of fibers, which composes the internal sphincter, is disputed by some observers. That this sphincter controls, absolutely, the flow of urine, I have demonstrated conclusively on three of my cases after the prostate was removed, and the posterior prostatic urethra entirely removed with it. It was necessary in these cases to introduce a forceps or a catheter to allow the urine to escape from the bladder when the operation was complete, showing that the sphincter vesicæ internus has complete control of the urine, without the aid of the sphincter urethræ, notwithstanding the statements of so many authorities to the contrary. "When the accumulation in the bladder becomes greater the external sphincter is brought into action."—Am. Text-Book Phys., 1896. This we have been unable to observe, as the extensive operation interferes with this sphincter. If the desire to urinate is strong, the external sphincter is undoubtedly controlled by voluntary effort, but whether or not in mature filling

Figure 4 shows the relation of the urethral mucosa to the ejaculatory duct and prostatic sinuses, and the relation of the prostatic substance to the prostatic urethra.

of the bladder it is brought into play by involuntary reflex, is not definitely determined. Emptying the bladder may be prevented, if desirable, when it is filled, by voluntary contraction of the sphincter urethræ. According to Goltz, the voluntary control of the process of micturition is limited to the action of the external sphincter and the abdominal muscles. The contraction of the bladder is purely an unconscious reflex, taking place through a lumbar center.

"Careful dissection fails[1] to show any thickening of muscle around the commencement of the urethra sufficient to constitute a sphincter; the absence of such a sphincter has been especially emphasized by Griffiths, and can be easily verified by dissection. There are, however, around the urethra, collections of unstriated and striated muscle, which by their contraction close this canal and check the urinary flow. Thus, the first part of the urethra is surrounded by a muscular coat, consisting of inner longitudinal fibers and an outer, thicker, circular layer continuous with the inner and middle layer of the bladder. There is also a sheet of striped muscle which surrounds the greater part of the urethra, and extends from the level of the entrance of the vasa deferentia into the urethra to within a couple of inches of the urinary meatus. In man, the first part of this muscle is represented by a few transverse fibers on the ventral surface of the lower half of the prostate gland, and is known here as the external sphincter of Henle. Around the membranous portion of the urethra the sheet is termed the constrictor urethra, and around the penile portion, the accelerator urinæ."

"The mechanism of closure of the bladder has been the subject of much discussion. Retention of urine has been variously ascribed to the elastic resistance of the tissues at the neck of the bladder, or to the contraction of the internal sphincter, or to the external sphincter of Henle. Heidenhain and Colberg proved that the elasticity at the neck is not the only factor in closing the vesico-urethral orifice, as the bladder of the dead subject will not stand the same pressure as the living without leakage through the vesico-urethral orifice. If the lumbar spinal cord be disturbed, the condition in favor of the living animal is abolished, showing that it depends

Figure 5 shows the horseshoe shape of the prostatic urethra. Also the elevation of the floor of the urethra into the crescentic anterior wall which covers four-fifths of the entire circumference of the urethra. The fibers of the prostate extend into the verum montanum.

on the existence of a tonic contraction, under the influence of this part of the cord. There is no doubt that the greater part of the resistance offered to the outflow of urine is occasioned at the vesico-urethral orifice, only a small part being offered by the urethra itself. Thus, in surgical operations, the urethra may be incised up to the neck of the bladder without the escape of urine; and in the cat the urethra between the neck of the bladder and the prostate gland may be divided completely without any of the urine escaping. Reyfisch has excised the prostate in dogs without producing incontinence. Experiments show that the resistance to the outflow of urine is situated at the neck of the bladder, and must be due either to the tonic contraction of the circular fibers at this point, or to the elastic retraction of this orifice, aided perhaps by the position of the mucous membrane along the whole length of the urethra." Great care must, therefore, be exercised in any operation on

the neck of the bladder, not to interfere with the zone of control in the act of micturition.

Not only is the sexual function diminished or lost by the removal of the prostate, but it is materially interfered with by prostatotomy, as in the Bottini operation. Guiteras[2] says: "The patients are not *always* incapacitated for sexual life by the Bottini operation." From our observation it would appear that the prostate

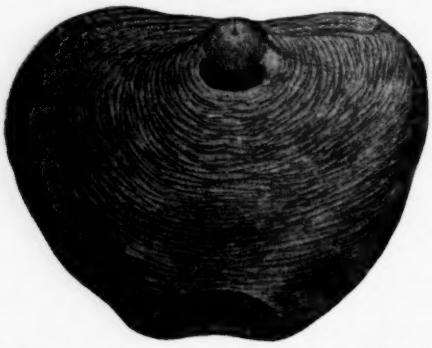


Figure 6 shows the tit-like projection of the middle lobe into the floor of the urethra.

gland is placed over the neck of the bladder as a secondary muscular development. Its greatest bulk is made up of muscular tissue. It has situated within it a small glandular structure; the urinary control is entirely independent of the prostate, as was shown in my cases; for, if the prostate was removed, the urine did not escape, except in cases where the bladder wall had been torn in liberating or detaching the enlarged prostatic lobe. It is rather an accessory to the sexual function

Figure 7 shows the muscle fibers of the bladder and the sphincter vesicæ internus, (*a*) with the prostate removed.

than to the urinary apparatus. G. Buckston Browne[3] believes that the prostate has no especial urinary function, whatever. W. H. Howell[4] says: "By careful experiments upon white rats Steinach has shown that the removal of the seminal vesicles and prostate gland, while not diminishing the sexual passion and the ability to perform the sexual act, including the actual discharge of spermatozoa, prevents entirely the fertilization of the ova. Removal of the seminal vesicles, alone, remarkably weakens the fertilizing power of the semen. The secretions of these accessory glands are essential to the mo-

Figure 8 shows the hook retractors as applied to the prostate.

bility of the spermatozoa, and they may have other important functions." The function of the prostate is to contribute the prostatic fluid to the semen; the specific use of this fluid is not known.

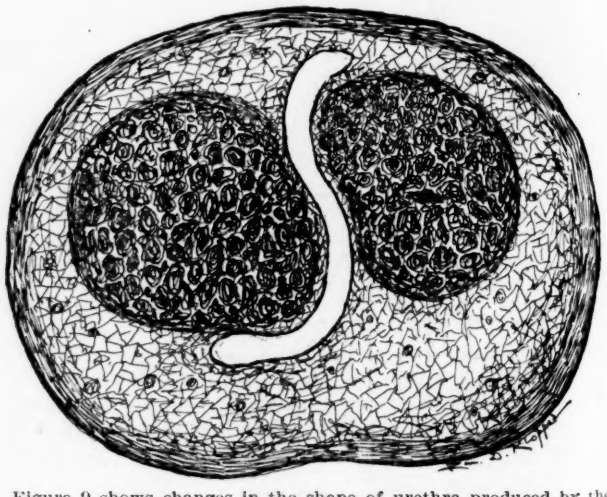


Figure 9 shows changes in the shape of urethra produced by the myomata. (Transverse section.)

ETIOLOGY.

Browne believes that we have no reliable data on which to base a theory of the prostatic enlargement. However, he says, when asked how to avoid the malady: "I would suggest plain living, exercise on foot, very moderate worship at the shrine of Venus after 50 years of age."

The age at which prostatic enlargement begins is variously estimated. L. Bolton Bangs[5] believes that it

begins a considerable time before the 50th year, and that the earliest manifestations of prostatic hypertrophy are not generally recognized. Prostatic hypertrophy is extremely rare in Japan, India and China,[6] while in Turkey it is of comparatively frequent occurrence.

Schultze[7] states that enlargement of the prostate is rarely found in the negro, although he describes one in which the middle lobe, obtained by autopsy, measured 5 by 7 centimeters, and microscopic examination showed a marked hyperplasia.

We do not believe that excessive sexual indulgence plays any more part in enlargement of the prostate than in the production of fibroma of the uterus; and it is well known that, proportionately, fibromata of the uterus

Figure 10.

are more common in the unmarried than in married women. Then again, it is markedly absent in such races and nationalities as the Japanese, Chinese, Negro and Indian.

Our exact knowledge of the etiology of enlargement of the prostate may be summed up by saying that we know nothing definite about it.

PATHOLOGY.

The benign neoplasms and enlargements of the prostate resemble very closely in their histology, in their mode of development and in their relations to the organ itself, the non-malignant neoplasms of the uterus. First, they are myomata, fibromata and combinations of these two, principally the combinations, and not infrequently there is a general hypertrophy of the entire gland without any distinct tumor formation, resembling closely the soft, flabby subinvoluted uterus—See Fig. 12, Case 3. The enlargements are many times completely incapsulated, as shown in Figs. 18 and 19, Case 7. In a great majority, however, they are closely connected with the prostatic tissue itself—See Fig. 18, Case 7—just the same as in the intramural fibroid there is always an enlargement and hypertrophy of the uterine tissue associated with the myoma—See right lobe, Case 7, Fig. 18. In the lateral lobes the tumors are most frequently intramural, as seen in Fig. 19, Case 7, next submucous. In the middle lobe they are often pedunculated, rarely intramural and practically never subcapsular.

Wishard[6] draws particular attention to the mechanical character of the obstruction in hypertrophy of the prostate, and to the direction which the enlarged body takes,

Figure 11.

Figures 10 and 11 show the traction hooks used for drawing down the prostate.

i. e., towards the bladder, in the direction of the urethra or in the direction of the rectum, as the case may be; the size in one direction bears no particular relation to its size in the opposite direction. It interferes more or less with the urinary function, depending upon the direction of the pressure whether it be upon the urethra, bladder or rectum.

MEDICAL TREATMENT.

James R. Hayden[8] strongly favors a conservative palliative treatment, and claims that while it does not cure, it at least prepares the patient better for the operation. His treatment consists of strict dieting, assisted by urotropin in full doses, to render the urine alkaline (sodium phosphate would accomplish this much better), and the administration of hyoscyamus, kava kava, triticum repens and uvi ursa, associated with daily rectal injections

of hot saline solutions and sitz baths. However, when operation is resorted to, he favors prostatectomy, either by suprapubic or perineal route.

The development of forceful and scientific procedures in the treatment of prostatic lesions has scarcely kept pace with the development of operative procedures in other fields of surgery. It has, however, though tardily, developed on the same lines with its analogous organ in the female, the uterus. Surgery of the prostate gland is now rapidly taking definite form on rational mechanic, anatomic and histologic bases.

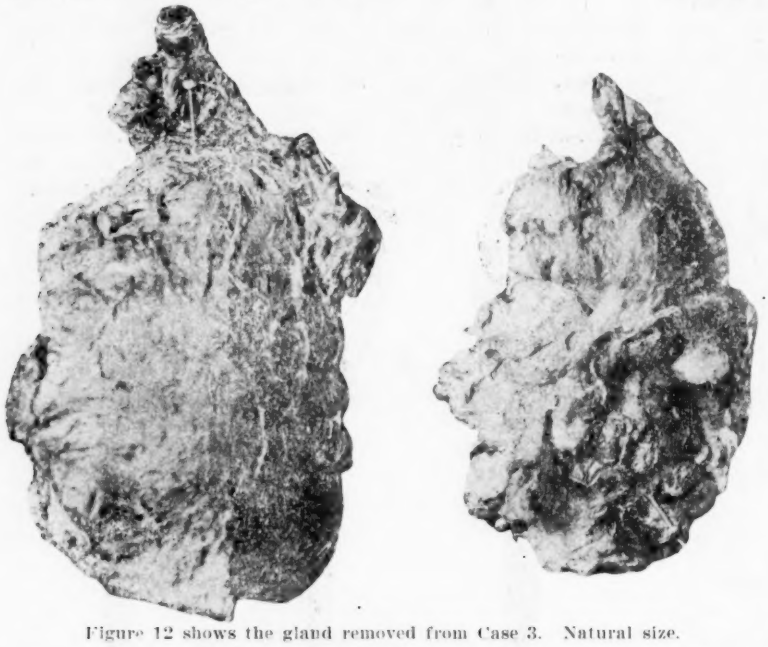


Figure 12 shows the gland removed from Case 3. Natural size.

During the last quarter of the century the sufferer presented a lamentable picture. Usually a man of great energy, strong mentality, physically robust, indefatigable in his labors, and by these had gained a competence whereby he could spend his declining days in comfor. prostate; by this he is deprived of his sleep, and the pursuit of pleasure were it not for his suffers intensely from pain, and sees no ray of hope for relief from his prostatic enlargement or its unpleasant sequences except in the grave. This picture may not fit the few, but it does fit the many, who suffer to a pathologic degree from prostatic enlargement.

Temporary catheterization is resorted to for the relief of urinary retention, which comes on after some undue exposure, acute illness, traumatism or what not, which produces a temporary retention. This should be accomplished with all aseptic precautions, with the greatest gentleness in mechanical manipulation; it can always be accomplished where there is an absence of stricture of the urethra anterior to the prostate. There is no such condition as prostatic stricture. The urethra is always patent in its prostatic portion, and the obstruction offered to the passage of the catheter is the obstruction due to deformity, pockets, prostatic sinuses and compression of the urethra by encroachments on its lumen from various directions by the enlargements or neoplasms in the prostate itself as shown in schematic drawing. Fig. 9. All of these occur on the posterior and lateral portions of the urethra; the anterior portion offers no obstruction. The ideal course of the catheter, therefore, is along the anterior wall of the urethra. It is only a question of proper manipulation and an estimation of the directions of the canal for the successful accomplishment of temporary catheterization. In this, force must play no part. It should and can always be accomplished by those of skill and experience, in primary urinary retention, and the patient is, therefore, never forced to an immediate operation on his prostate under these circumstances, because he is then often in an unfavorable condition for operative procedure. The soft rubber, with or without the lead stilet, and the coudee catheter, preferably of large size, are the best instruments to use. In these primary retentions the bladder may be completely emptied.

Continued or chronic retention presents to the surgeon many distinctly different, as well as dangerous, phases. Under these circumstances the bladder is often enormously enlarged; its veins are compressed, its walls anemic from pressure; its arteries are frequently dilated, and advanced pelvic or peripheral renal changes may have taken place. Because of this protracted compression of the combined urinary surfaces, care must be exercised that this pressure is not too suddenly relieved, i. e., that the bladder is not completely emptied; otherwise we have found by experience that there is an immediate congestion of the urinary surfaces, often followed by hemorrhage, frequently by shock, chills, fever and death. A chronic sufferer from vesical distension should never have his bladder completely emptied in a primary catheterization.

PROSTATOTOMY (BOTTINI).

Dr. Ramon Guiteras[9] may be said at present to favor prostatectomy, but he admits that a large portion of the cases are in such condition that no radical operation is justified; the Bottini operation in his hands has afforded this class of patients great relief. He has made a thorough investigation[10] of the Bottini method and comes to the following conclusions: "It is difficult to conceive why an operation consisting simply in burning linear scars into the sides and floor of the prostate gland and followed by the casting off of sloughs, should cause such a reduction of the urinary obstruction, and such a contraction of the gland; clinical evidence, however, supports the truth of this statement." Incontinence is rare after prostatectomy (Bottini). The cure of incontinence is not due to increased strength in the vesical sphincters, but to relief of the over-distended

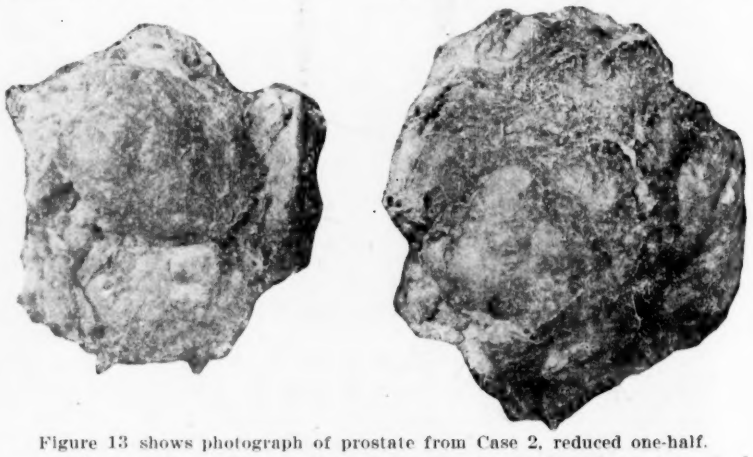


Figure 13 shows photograph of prostate from Case 2, reduced one-half.

bladder, as the pre-operative incontinence in the sufferer is due to over-distension rather than lack of sphincteric tone.

There can be no doubt there is an immediate relief of the urinary retention and its most distressing sequences by the Bottini operation in properly selected cases.

Dr. Hugh H. Young's experience with the Bottini operation covers 40 cases.[11] Six were lost sight of; 34 operations were performed on 31 patients, three patients having each two operations; the ages of these patients averaged very high, eighteen being over 67 years; of

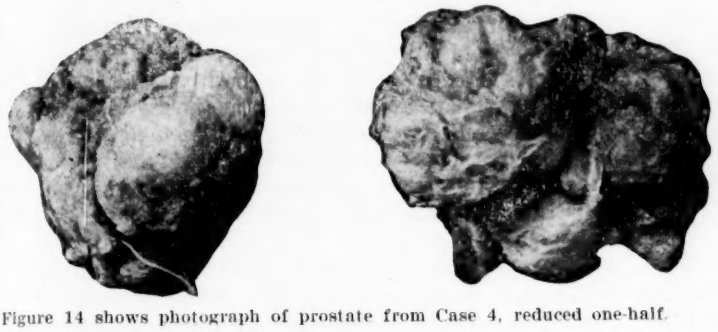


Figure 14 shows photograph of prostate from Case 4, reduced one-half.

fifteen over 70 years of age, all are alive and well; three of the 31 died, two of these four and five weeks after the operation, from uremia; one from sepsis from a peri-prostatic abscess due to a 4.5 centimeter incision puncturing the capsule. In all there was an immediate relief of the urinary retention. Of 20 cases which were operated on a sufficient length of time to admit of deductions as to the result, 17 were cured, two improved and one unimproved. Of the 8 others, the conditions were good up to the present time. All dispensed with the use of the catheter.

Dr. Bangs,[12] in commenting on his results with the Bottini operation, says 60 per cent. of the subjects threw away the catheter; about 20 per cent. have an increased amount of spontaneous urination; and 20 per cent. received little or no benefit. He secures special advantages by the use of his solid tip metal catheter after the Bottini operation. In the 40 cases he reports, there were three deaths directly attributable to the operation. Two of these were from sepsis and one from shock. Notwithstanding these apparently favorable results,[13] he pronounces the operation a serious one, and not to be lightly undertaken; that the danger is in proportion to the severity and extent of the operative procedure; that the symptoms immediately following the Bottini operation are, frequent urination, with considerable pain; hemorrhage, either primary or secondary (in about one-third of the cases); fever in 30 per cent. and chills in 20 per cent.; and that the post-operative period, in which these symptoms are present, continues for from two to three weeks. Incontinence, an annoying symptom, was present in 6 per cent.; 9 per cent. were operated on twice, and 2 per cent. of these were not benefited by the secondary operation; in 20 per cent. there was no benefit. Guiteras[14] collected 753 prostatotomies; 622 were cured (85.5 per cent.); 44 died (5.8 per cent.); 87 were failures (11.5 per cent.). Dr. J. W. S. Gouley[5] concludes that the Bottini operation has no advantages over the Mercier operation, which he introduced in this country in 1878, and has performed fifteen times. He believes that the operation of prostatectomy is the one indicated where the prostate is enlarged, whether soft or hard. Dr. S. Alexander[5] considers that the technique of the prostatectomy bearing his name is a most dangerous and difficult one, and he is disposed to discuss its failures rather than its successes. He considers the Bottini operation favorable in selected cases, and wishes to impress upon its adherents that the obstruction in prostatic enlargement is not intra-vesical, and, therefore, could not be observed with the cystoscope or searcher. Willy Meyer[5] believes that the width as well as the depth of the incision in the Bottini operation is important. He uses permanent Mercier catheter after the operation, and keeps the urine loaded with antiseptics. He considers that prostatectomy is the more surgical procedure, and that the after-treatment is much less difficult and arduous than after the Bottini operation. He also considers the soft prostate difficult to cure by prostatectomy.

The destruction of the prostate was accomplished by

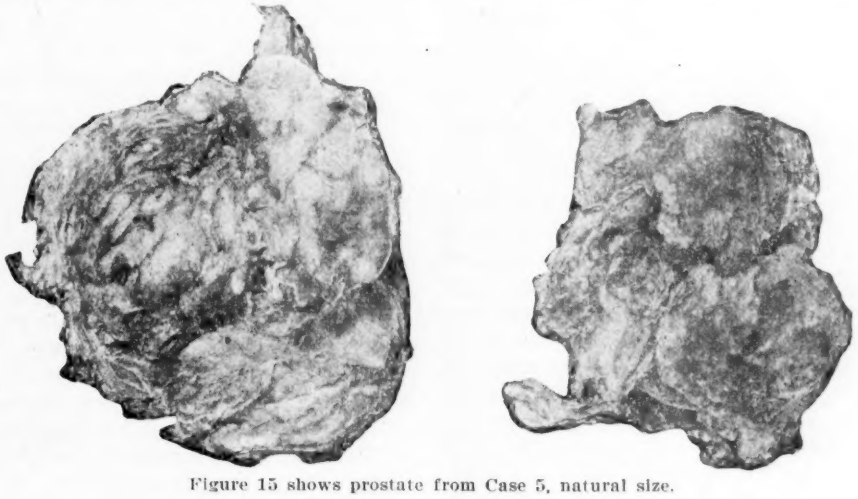


Figure 15 shows prostate from Case 5, natural size.

me a few times at the Alexian Brothers' Hospital by means of thermo-cautery through the suprapubic route with a vaginal rubber speculum inserted into the bladder, but the average results were such as not to encourage me in continuing the work, and I have abandoned it for perineal prostatectomy.

(To be continued.)

Influenza is epidemic in various parts of Great Britain, the House of Commons furnishing center of infection.

PROLONGED INTUBATION.*

EDWIN ROSENTHAL, M.D.
PHILADELPHIA.

On the evening of May 23, 1888, I was one of several hundred who listened to Joseph O'Dwyer, in the Hall of the College of Physicians, Philadelphia, in a lecture before the Philadelphia County Medical Society. In the proceedings of the society I find the following note:

"Before reading his paper, Dr. O'Dwyer exhibited tubes with a metallic attachment to replace the epiglottis in swallowing, one of them being so arranged with a spring that the finger might be introduced behind it, as an extractor. In order to illustrate through how *small* a space [the italics are mine] breathing can occur, he exhibited a specimen from a case in which there had been no choking of voice or other sign of laryngeal involvement. Many fear that the tube will slip through the trachea. A tube was exhibited in situ in a 3-year-old larynx, showing that this accident can not occur if the proper size tube for the age be employed."

I quote so fully from the originator of this operation for it seemed to me that when O'Dwyer matured his matchless set of instruments he considered every condition that might arise, and thus in a measure gave a remedy.

The progress of intubation from an experimental procedure to an exact operation may be divided into three stages. 1. The introduction, where the master lectured to the student, exhibited his materials and asked for a trial. 2. In which the operation underwent the test of many investigators. Its merits and demerits were studied, the good retained, the bad dropped, and every part of the operation—from the instruments, tubes, gag, introducer, extractor, or even the silk necessary to be used—was carefully tested, and the final judgment appeared with the discovery of the serum treatment. This second period, which may be termed the transitory period, embraced the years intervening from the time that O'Dwyer presented his operation until its acceptance by the profession as an exact and independent operation, and ended when intubation, spoken of as a primary operation to tracheotomy, ceased to be considered. The third stage began with the advent of antitoxin, and, as the operation was so thoroughly studied in the transition period, those familiar with the operation were ready to investigate those minute details which before had failed by reason of the generally fatal course of this type of the disease.

Before the serum period, intubation at its best was only an "expectant procedure," and the details of its technique was mostly an invention. We can show no greater example of the value of the serum treatment than to exhibit the statistical records of this operation. For, where before the serum period we described our results by the percentage of recoveries, we now record our results in the percentage of deaths. To the antitoxin is also due the very many discoveries made in the progress and sequelæ of diphtheria, and most conspicuously in the "laryngeal type," and especially those most serious cases requiring intubation.

We have thus been enabled to study more fully the value of this procedure, and we have found that we are not only liable to relieve the impending suffocation—the most urgent symptom—thus using it simply symptomatically, but we have, as we progressively watched and studied our various cases, found that the operation of intubation has assumed a new standing for the relief of such cases; and where before we looked upon the operation simply as an expectant one we now place it among our certain remedial methods, most reliable, and of exact and certain promise. Indeed, so certain has an enlarged and accurate clinical experience impressed us, that what we before looked upon as an expectant method, the recovery being the exception, we now look upon as a specific method, a death being the exception.

Studying intubation, various authors have taken up the different difficulties formerly met. Some have studied the injuries resulting both in intubation, as well as extubation; others the methods. Various instruments and devices have been presented to expedite either the intubation or the extubation, with no injury to the patient. Some have attempted improvement either in the tubes, or the various instruments necessary to the operation.

But the most important and valuable work of the many investigators, to my mind, was the study of the technique of the operation. In other words, not so much the method of the operation, but its object, i. e., the study of the time required for the tube to do its work to cure the patient, and the time required for the tube to remain in the larynx in a simple or normal case of diphtheria of the larynx.

In this work I can claim some originality, and the result of my labors was presented to the J. Aitken Meigs Medical Association, in Philadelphia, as well as to the Medical Society of the State of Pennsylvania. I was not alone in this line of investigation, for Johann v. Bokay, Budapest, was doing the same work, and presented his results at the same time. These papers, printed in Europe, have been translated and widely circulated and have given to others an incentive for the same methods of study. They have also resulted in a certain rule of practice and have given us an appreciation of what may be considered a normal case of intubation.

RULES TO FOLLOW IN NORMAL CASES.

A collective study of the time consumed for a tube to do its work in patients cured of diphtheria of the larynx has shown us surprising results as an example of the influence of the antitoxin treatment. Before the antitoxin period it was an impossible question to say how long a tube should remain in the larynx. We had certain rules, given by O'Dwyer himself, and these briefly were as follows: An attempt to remove the tube from the larynx should be only after seven days, and even then we should always be ready for prompt reintubation should the case require it.

This rule was universally followed, and never questioned until the investigations of Bokay and others proved that the antitoxin had reduced this period, and a collective study has reduced the period to five days. So that this is now a very good rule in practice: in a normal case of laryngeal diphtheria make the first attempt at extubation after a period of five days, or, to be more exact, after 120 hours

If, however, the case requires a reintubation at once, or even a week later, it may be assumed to be abnormal. It should come under the category of prolonged intubations, for then it will be impossible to prognosticate correctly the time when the tube may be left entirely from the larynx.

* Read at the Fifty-second Annual Meeting of the American Medical Association, in the Section on Diseases of Children, and approved for publication by the Executive Committee of the Section: H. E. Tuley, Edwin Rosenthal and Samuel W. Kelley.

THE TYPE OF THE DISEASE AS A FACTOR.

Before the antitoxin period it was my common practice to make a first attempt at extubation only after seven days; and a frequent reinsertion was almost always expected. Hence, I could never predict in any given case when I would finally remove the tube, or when the case was better. It was the rarest incident for a patient to be relieved in less than a week. This was done never by my hands, always in such instances by expectoration, when the relief of the stenosis proved that the tube was no longer required.

It was then a very common occurrence for me to see a tube worn two or three weeks, while a longer period than this was never considered by me to be anything extraordinary.

If, after the throat was clean and free from the specific bacilli, the patient was unable to exist without a tube, I would then consider the case one of prolonged intubation, and the case would linger for weeks, or perhaps months. Dr. William M. Welch, of the Philadelphia Municipal Hospital, records a case of three months. Finally, a cure or death, or the operation of tracheotomy would change the character of the case.

From this very brief and concise summary of what may be now termed ancient history of the pre-antitoxin period of the evolution of intubation, one can quickly conclude that the knowledge of the value and the practice of the method was in a truly chaotic and rather uncertain condition. With the specific character of the antitoxin, was opened a way to consider the causes that lead to prolonged intubation, and when such incidental cases appeared the opportunity was taken by all to investigate the reasons thereof.

CAUSES OF PROLONGED INTUBATION.

First, I reject injuries as a cause. A careful and expert intubator must never, or should never record injuries as a reason. This can be left to the novice or to the clumsy or careless.

Injuries should be considered a specific study, and as they result always in a tracheotomy, should come under this category. Bokay, who has made special investigations, gives their treatment as tracheotomy; and as an injury, both in intubation or extubation needs very prompt treatment, I would not consider the treatment of the result, by intubation, of such injuries as a true case of prolonged intubation, even if the tube will be required a long period.

I would divide the causes of prolonged intubation into three, namely, 1, the type of the disease as a factor; 2, the result of the disease, or its sequel, as a factor, and 3, the result of the operation, the wearing of a tube as a factor.

The Type of the Disease as a Factor.—The natural cause of prolonged intubation in the disease may receive a specific name—chronic laryngeal diphtheria, or chronic croup. This as a cause for the prolonged presence of the tube in the larynx has very recently been noted. Before the Section on Laryngology, at Columbus, Ohio, I read a paper on this subject. In all my cases antitoxin was used, and hence they were treated specifically for the diphtheria. The croup persisted, even after the absence of the Klebs-Loeffler bacilli was proved bacteriologically.

The presence of the streptococci was considered as the cause, and the cases, being treated with the antistreptococcic serum, were cured. In these cases, two in number, the duration of the intubation was into the third week. My method of treatment will be related in concluding this paper. Investigating this particular subject since then, I found that others had made the same observation as to the disease. F. Egidi (*Due Casi di Crup Chronico*) divides this class of cases into three: First, those prolonged by tracheotomy; second, those prolonged by treatment without an operation, and third, those prolonged by intubation. Egidi, whose study of intubation before and after the antitoxin era is so well known, has even gone so far as to invent certain instruments essentially useful for such cases as these. At the second reunion of the Italian Society of Laryngologists, Rhinologists and Otologists, he presented a paper (*Stenoses laryngees et leur traitement*) on laryngeal stenoses, and divided them into three categories: 1. Chronic stenoses (*les stenoses chroniques*). 2. Acute stenoses (*les stenoses aigues*). 3. Traumatic stenoses (*les stenoses ayant une cause externe*). He thus proved his familiarity with the varieties calling for accurate treatment and the need of the various instruments that he devised.

Those familiar with the treatment of croup by intubation have noted a primary as well as a secondary type: The first, where the disease begins in the larynx; the last, where it is a continuation of the disease from a nasal or faucial type. The latter may be taken as the type which may give rise to such cases as prolonged intubation. Where it exists with, and is a complication of, other types of diphtheria and requires intubation its history may be the same as any normal case. But when it comes after all the first symptoms have disappeared and can be classed as a reinfection, even if its appearance is a day or a week after the disappearance of the first symptoms, and even if these first symptoms were laryngeal and required intubation, the case belongs to that category of "chronic croup" requiring the same prompt treatment, the same reintubation and the same collateral treatment, but should then be classed as a case of prolonged intubation and with the abnormal cases.

The Result of the Disease, or Its Sequelæ, as a Factor.—By far the greatest or most frequent cause for prolonged intubation may be placed to the sequelæ of the disease. Paralysis of the vocal cords appear the most frequent. As Augustus Caillie ("The Modern Management of Diphtheria and Croup Cases") succinctly says: "Secondary stenosis after intubation due to abduction paralysis has been reported, but lacks confirmation." But so many cases have been recorded to which this cause has been given, cited by Engelmann, Fischer, Waxham and others, on this side of the Atlantic, and by Bokay, Trumpp, Egidi, Galatti, Massei, Escat and others in Europe, that its presence can be no longer a question. If the fact of the treatment, with recovery, of such a condition being the cause of chronic stenosis requiring the prolonged presence of the tube will be considered, I think I am right in speaking of this sequel as the most frequent.

With paralysis of the vocal cords being a sequel, and a cause for wearing of the tube, the other effects may be said to be the result rather of the paralysis than a pure and simple disease. However, the presence of the tube frequently gives rise to irritations. If, therefore, its presence be permitted to too great an extent this irritation results in other conditions which are of themselves abnormal.

The Result of the Operation, the Wearing of the Tube, as a Factor.—A familiar subject of intubation,

now so thoroughly investigated, is the injuries resulting from the presence of the tube. The irritation set up by the tube results in an inflammation, which in its turn results in edema or suppuration. Some authors claim that such results are chiefly due to traumatism—laceration produced by efforts in intubation or even extubation. Lacerations may be produced in the former by using too much force in an irregular attempt; in the latter, by missing the opening of the tube, by the lips of the extracting instrument, and dilating the blades and withdrawing, the larynx is injured. Waxham, in Sajous' Annual and Cyclopedia of Medicine, has so thoroughly described all these lesions that I can do no better than quote it.

"A number of causes have been enumerated as rendering necessary the long-continued use of the tube. Principal among them may be mentioned the formation of diphtheritic exudate or its long persistence in the larynx and trachea; edema of the tissues; ulceration of the cricoid cartilage and consequent collapse of the thyroid cartilage; cicatricial contractions and exuberant granulations following ulcerations and abduction paralysis. In some of these lesions, the lesion is due to a too tightly-fitting tube, to leaving the tube in too long, to poorly-constructed instruments, and some to injuries resulting from unskilful operations."

I can not say from personal experience that the injuries thus enumerated are very frequent. That they occur, or have been noted and recorded, is sufficient evidence for a constant prophylaxis.

The most frequent condition met with and one that the most painstaking efforts can not prevent is edema. This I have seen often enough. To speak more at length. Edema of the larynx results from various causes besides the presence of the tube. I have been frequently convinced that edema necessitating intubation in cases that were first benign, or requiring prolonged intubation, in cases intubated and pursuing a normal course, has resulted from the improper uses made of local remedies. For instance, using the strongest peroxid of hydrogen, either with a mop, or a syringe, or an atomizer. The irritation set up by the too copious use of this medicament, I am sure, has been the cause of more harm than good. I can speak thus plainly because I am so faithful in the use of this drug. I never intubate without first cleansing the mouth and throat, as well as my tube with it. But, where I formerly used peroxid of hydrogen of the greatest strength I could obtain, I now use it in the opposite way, as weak as I can. Again, where I employed it hourly in an atomizer to cleanse the tube, I now use it only when I intubate or extubate. Other medicaments may be as harmful, but not being so generally known and used have not received the prominence the peroxid has. The Germans are right when they record using the simplest local remedies, like boric acid, or the like. Since I have rejected the constant use of local measures (using them only when indicated, and then the weakest), cases of prolonged intubation or those requiring the tube have grown less.

To summarize briefly the instances that require the prolonged use of the tube, I would begin with chronic croup, paralysis, and edema. Our aim is to end the intubation as quickly as possible. If other conditions exist, besides these mentioned, the intubation should become a tracheotomy, for the longer the tube acts as an irritation, I fear, the worse the results.

REPORT OF CASES.

CASE 1.—A case before the antitoxin period. Mary S., aged 4 years, 10 months, living in the country. Patient of Dr. Anderson, of Paschalville. This child's home was isolated. The nearest neighbor was probably a quarter of a mile. This case was referred to me by Dr. Orville Horwitz. I dwell on the surroundings so that the method of treatment may be understood. The case was intubated with a No. 4 tube. I chose this rather large tube because the distance to my home was over 10 miles, and I did not wish that the child should expel the tube by coughing. On the eighth day I extubated in the usual way, but after an hour reintubated. After one week I again extubated, but had to intubate more promptly. The third time, the extubation and reintubation was performed as quickly as possible; not a moment was lost; the child did not breathe alone during the interval. The fourth and fifth extubation and reintubation were repetitions, and I began to think this child could not exist without the tube. Her general condition was good. During the interval of my visits the child was permitted to do much as she liked. It was the time when croup was considered one disease, and diphtheria another. On one of my visits I had to wait until the father went to the fields and brought the patient. This case taught me many things, and the one that I have adhered to: never to interfere too much with the peculiar idiosyncrasy of my patient. I permit them to fix themselves—after each intubation—in a way that gives most comfort. I have had as a result a fair average of recoveries, and never any in which dorsal decubitus results. This child was extubated and reintubated by myself seven times, when it occurred to me to use a smaller tube. I thus began, and under a tonic treatment, in which strychnia in rather large dose at that time (1/128th grain—0.0005 was frequently given three or four times daily), and in the eighth week I was able to relinquish the case.

Other cases, not as long as this, were frequently met with, and if I went into the third week I though it nothing extraordinary.

Now, the change after the serum began to influence our methods, note the second case:

CASE 2.—William Henry W., aged 1 year and 6 months. American birth; patient of Dr L. F. Taubel, of Philadelphia. Intubated with a No. 1 tube; and 1000 units antitoxin given with it; the general mercurial method of treatment.

With this case, I employed the services of advanced medical students. This child had been sick one week previous with a faucial diphtheria, for which the doctor had administered 1000 units antitoxin. This case then can be termed a "reinfection" and the result of a too small dose of the antitoxin, in an overwhelmingly infected child. As this patient had received 2000 units I felt, that after the third day all membranes should have disappeared; so on the fourth day of the intubation I extubated. I left the tube out one and a half hours, and reinserted, as there was need. The next day, I again extubated, but found I was again too early. On the sixth day I extubated and found the child could exist without the tube. The time required was 6 days and 16½ hours. In this case, had a sufficient amount of antitoxin been used in the first instance there would not have been the secondary laryngeal involvement, and intubation. This was a simple normal intubation.

CASE 3.—Lillie R., aged 5 years; female, of American birth and parentage. A patient of Dr. Augustus Kappes, of Philadelphia. Seen in consultation on the fourth day of its illness. Administered 2000 units of antitoxin at once, and intubated. On the sixth day the tube was withdrawn. Indications perfect, and the tube was not reinserted. Seven days thereafter, I was with the Doctor in another case—a male child aged 3, intubated, and tube withdrawn on the fifth day, cured—when Dr. Kappes told me of the beginning difficulty in breathing of the first case. As it was in the neighborhood I visited the case, and at once intubated again. There was the greatest need, as the child was almost in extremis. In this family were two other children, all girls, and older by a few years. In the one was a beginning tonsillar diphtheria; in the other a very pronounced faucial, almost malignant? Was this case reinfected by the older sister? I injected 2000 units again, and in one week withdrew the tube, and it was no longer required.

CASE 4.—William S., twin, aged 1 year, 4 months. The other had died of diphtheria. Patient of Dr. Lawrence Wolff, of this city. I had no further work to do, simply to intubate. This child was of Italian parentage, and I have noted that a larger tube is sometimes required in these cases, larger than the average. I began with a No. 1 tube. After 5 days the child, in vomiting, expelled the tube. I reinserted, and as promptly expelled. I did this for a period of five days, when I used No. 2. After four days this was expelled, the child requiring further intubation, and the danger of expelling the tube when I was not to be had, prompted me to use a No. 3 tube. This I used for one week, when I began with a smaller tube, and so on until no longer required. This case required a tube thirty-five days. Of the method of treatment I had no knowledge, but it appeared to me that the child was so toxic that it required so much time for it to recover.

CASE 5.—A male child aged 5 years, in the practice of Dr. Moore, Bridgeton, N. J. This case was reported in the *Medical News* by the Doctor, and was essentially one of chronic croup. The interest in this case was the enormous (to us then) amount of antitoxin given during the course of the disease, over 22,000 units. The result was a recovery. This child eventually expelled the tube by coughing, and the croupy symptoms were manifested. He did not require the tube as long as the difficulty lasted.

CASE 6.—The last case I wish to record has already been placed on record, in *American Medicine*, No. 5, May, 1901. Herbert D., aged 2 years and 7 months, was treated by an insufficient amount of antitoxin, was reinfected on the seventh day with laryngeal symptoms, which three days later required intubation. The interest in this case consists in the fact that the cause of the prolonged intubation was found to be paralysis of the vocal cord, and hence treated therefor. The case required the presence of the tube thirty-six days, and the whole course of the child's illness from the beginning to the cure was forty-nine days. The case received 1000 units antitoxin as a beginning dose. The case was a tonsillar diphtheria. The result was a disappearance of all visual traces of the disease on the fifth day. The laryngeal symptoms were supposed to be catarrhal, simply because antitoxin had been given, and the toxin of the diphtheria supposed to have been nullified. The course of the disease, however, disproved this, and that the child suffered from paralysis, showed that the infection was profound, and the sequel a result.

The clinical history of the intubation was as follows: After the time (five days) had elapsed, when the membranes disappear (from three to five days) extubation was attempted. The result showing a disappearance of all stenotic symptoms. After thirty-six hours significant signs manifested the fact that at times suffocation seemed imminent; whilst, after a while, when the child was quiet, the breathing appeared natural. When the child was roused, as when crying or attempts at crying, a flap would be heard, as if a membrane was loosened, and then began the picture of membranous croup, ready for a tube. I intubated readily, and having used a larger tube than the age of the child required at the primary intubation, by reason of the normal size being too small, and giving no relief, I used the same sized tube. The large size of the tube, and the irritation caused thereby, gave me some trouble. I had edema, and at one time the tube was fixed by the swelling. However, I used but the gentlest local applications, until I could readily extubate, when I began the treatment for the prolonged intubation and the paralysis. The latter I treated with strychnia. Beginning at 1/100th of a grain (.00065) four times daily, until I reached 1/40th of a grain (.0015) four times a day. The intubation I treated thus: Until all edema and irritation had disappeared, I persisted with the large tube that I had begun with. After this I used the next size. This was expelled by coughing twice and reinserted. After the fourth day I used the smallest size. This proved what O'Dwyer had demonstrated in 1888, that a human being can breathe through a very small opening, if necessity compelled such a procedure. I think I am correct in the assertion made at the beginning of this paper, that O'Dwyer gave us a remedy for all the accidents that might arise as a result of the tube. Surely this is a result of his work.

This paper would be incomplete if a detailed record of cases of prolonged intubation not ending as I described were not added.

While I have given my personal experience in the six cases thus described, I wish to give the experience of others, notably Dr. William M. Welch, of the Municipal Hospital, of Philadelphia. Inasmuch as I erroneously quoted Dr. Welch in a former paper on this subject, giving eleven months as a period, which should have been eleven weeks (See *American Medicine*, No. 5), and further, as I also listened to Dr. Welch's discussion of my paper, "Reduced Period in Intubation by the Antitoxin," read before the Medical Society of the State of Pennsylvania, May 21, 1896 (See Proceedings for that year), in which discussion Dr. Welch expressed views opposed to the author, I take this means of acknowledging that Dr. Welch was right in every respect, and that his discussion on this occasion is of such value that I feel a description of his cases would add materially to the value of this paper.

CASE 7.—The record of this case, and the one following was sent to me by Dr. Richard Reese, resident physician at the Municipal Hospital, and in charge of the diphtheria wards, in which capacity he is the intubator. For this reason his reports are more valuable.

Mary McG., aged 6 years. Admitted to the Municipal Hospital, May 3, 1900. Showed marked symptoms of laryngeal stenosis. Physical examination failed to show evidence of diphtheria in the fauces. The nares were dirty, but showed no distinct evidence of diphtheric involvement. The cervical glands were, however, distinctly enlarged. She had developed an eruption of measles twelve days previous to admission, and the laryngeal symptoms had been present for two days. Two successive cultures failed to show the specific bacilli, but a brother who was admitted at the same time showed clinical evidence of diphtheria, and cultures proved positive. This case unfortunately died.

The laryngeal stenosis required intubation on the following morning, the third day. Six days after intubation, on the ninth day of the disease, the first attempt at extubation was made, with failure, for reintubation was performed ten minutes after. Four days after (thirteenth day of the disease) extubation was again attempted, and the tube remained out for twenty-five minutes. Extubation and reintubation were performed at intervals of four days, three times, making it the twenty-fifth day, when the tube was permitted to remain longer, from six to ten days, with no better result. When extubated the child presented all the symptoms of laryngeal stenosis, marked dyspnea, repressions, sub-clavicular and sternal. Clammy perspiration, etc., till finally after forty-two days of this (June 15, 1900) the patient was finally extubated. Yet while the respirations were not entirely free, the patient was able to get a sufficient amount of air, without the need of the tube. Her general condition had improved greatly for about two weeks, the child was up, dressed and played with others, when the respiration became again noisy, and the stenosis progressively more marked, and relief was demanded. Recourse was had to intubation, but every attempt to do so failed. Dr Reese attempted the intubation not only with the natural or normal tube, but with the smaller sizes, even to the infant size, and failed. As the case became more and more urgent for relief the Doctor performed a low tracheotomy. A slow recovery followed. The patient remaining in the hospital for ten months more.

Following the operation of tracheotomy, the patient became accustomed to these tubes, learned to speak and appeared comfortable. Even after the tracheotomy, attempts at intubation were made, but invariably failed. After the tracheotomy, cultures were again made, and the returns showed positive evidence of diphtheria.

CASE 8.—James L., an Italian, aged 4 years, admitted to the Municipal Hospital on Nov. 13, 1900. Examination showed no visual trace of exudate. The nares appeared irritated, the cervical glands were normal. There was, however, a diphtheric exudate on the upper and lower conjunctivæ of the left eye. In this case, intubation was performed at the home of the patient by Dr. Reese before taking the child to the ambulance for removal. A positive proof of the urgency of the case. The temperature on admission was 104.2, which fell gradually to normal on the sixth day, when extubation was first performed.

In this case cultures were positive both from the throat as well as the affected eye. Whilst the child was croupy but two days prior to admission, investigation proved that it was ill some five or six days before. Hence the first extubation was performed on the eleventh day of the disease. The tube was left out one hour, when it was reinserted. While the tube was out, the respiration was very much labored, but not enough to require the promptest intubation.

Four days afterwards extubation with reintubation in twenty-five minutes. Three days afterwards he was only able to breathe forty minutes, when intubation was again required. After four days the tube was coughed up. Reinserted, when again expectorated in twenty minutes. Dr. Reese then used a next size larger tube. This tube remained for two days, when it was coughed up, and it was necessary to reinsert at once after each coughing expectoration. The longest time he could do without the tube was twenty minutes.

On December 20, or after the thirty-seventh day of intubation, he began to cough up this large tube, when a still larger tube (i. e., for 8-9 years) was inserted. This was done with some difficulty, owing to the length of the tube, but the caliber of the larynx seemed sufficiently large as it did not fit too tightly. He continued to wear this tube until February 17, ninety-six days from the first intubation. Dr. Reese further reports to me: "We tried, of course, at intervals of from three to seven days to extubate, but with no more success, although at several of the later extubations the patient was able to breathe without the tube for an hour, and once, with some difficulty, over night." After wearing the tube for the time stated, it was removed one morning and the child breathed so well that reintubation was not necessary, and it was hoped and even thought that the difficulty had been overcome. For some days the patient did very well, breathing seemed easy, and unless one listened closely, the breath sounds were not audible. He continued doing well for nearly two weeks, when stenosis returned gradually but progressively, until sixteen days after the last extubation, when intubation was again required (the 117th day). This time the tube remained seven days, but again on performing extubation, it was necessary to reintubate in forty-five minutes. The tube was finally removed in seventeen days. The duration of this case (excepting the days when the tube was from the larynx) was 124 days.

Dr. Reese adds a very significant point: When the intubation was required after the lengthy extubation he could only use the normal size (i. e., four to five years) where before an extraordinary large tube had been used. Even this normal-sized tube appeared too large, and had to be inserted with some little force. "A permanent stenosis seemed to be coming on" and may possibly explain the case preceding this. Eighteen days after the last extubation, or on the 159th day of the disease, the stenosis had again become so marked that operative relief was urgently demanded. Intubation was again tried, but, as in the preceding case, it was not possible to insert an intubation tube. The larynx was almost completely closed, and as the child's condition demanded immediate relief, a tracheotomy was performed. This operation was done on April 15 last. The child has done well ever since, although, from that time until the present, he has passed through an attack of measles and chicken-pox.

As an appendix to Dr. Reese's report of this case: "It might be of interest for you to know, that during a greater part of the time that the child was wearing the tube, he was physically able to be up and dressed, and played about the wards of the hospital, as he is doing now. Not having been discharged, as I wished to see what might be done in the way of dilating the larynx."

METHOD OF TREATMENT.

It is always best in treating diseases to prevent, and in diphtheria of the larynx our endeavor should always be to prevent the disease progressing so far as to necessitate intubation. For this purpose we have the antitoxin. If the serum be used early enough and in sufficient quantities we can cure even before a symptom so marked as stenosis becomes manifested. If, however, we are called when the tube is required and then find that an insufficient amount of antitoxin had been used we must, after the operation, administer more; or our cases may be changed from the normal to the abnormal, that is, from a simple intubation that may require five to seven days, to a prolonged one, when it will be impossible to prognose a future. As the consensus of opinion points to the method of treatment as one cause, we must endeavor to remedy this.

Next to the insufficiency of antitoxin as a cause, stands local treatment. The use of too strong local applications are certainly to be deplored and we must advise to use the utmost care. While it may be our purpose to keep the parts as clean as possible, we must use the gentlest means: Boric acid in water, soda bicarbonate with carbolic acid in a suitable mixture, as in the nasal or catarrhal affections; or, if we wish to use the peroxid of hydrogen, we must dilute it sufficiently. There never should be used the so-called solvents of diphtheric membranes made up by chemists who have never seen a case of diphtheria, and know less. The crime of asserting that certain remedies are useful or specific is a cruel one and should receive condemnation of all. How much harm has been caused? How little or no good? I have received monographs that tell of the specific virtues of certain remedies in this disease that are worse than criminal. I would not urge too much conservatism; for the sin of omission is often as bad as that of commission. But I would urge the necessity of a common-sense method of applying local measures in intubation, and I feel by such a course prolonged intubations can be, in a measure, averted and the cases progress in a normal way.

As for those cases of diphtheria in which the tube is retained and we are still treating, I think the opinion of all is the same: The frequent extubation with reintubation, by progressively smaller tubes, until the case no longer requires them. If, as in the cases of Dr. Welch, reported by Dr. Reese, this method of treatment does not avail, tracheotomy, as performed by them, is the only recourse; and it is the common practice of all so to do. Still, the question of Dr. Reese is a very pertinent one, the dilatation of the contracted parts.

Egidi has reported some devices in dilating the larynx by a double tracheotomy tube. This may be useful for contractions low down, but for those high up in the larynx some other invention is required. Dr. Reese, whose opportunities are greater than many of us, has promised to give this his earnest thought. I should be the one who would apply such procedure, but until we have such means and the method of using the tubes fails, tracheotomy is the only remedy.

The medical treatment is strychnia. Naturally, in this we must be guided by the cause. If used, it should be used fearlessly.

SUMMARY.

Intubation of the larynx has taken the place of tracheotomy in the treatment of diphtheria.

It is now used to a greater extent than ever before.

Those best versed in its use should define certain rules of practice, and these should be sufficiently plain for a novice to follow. The rule that I would lay down is: The tubes should be clean; if metal, they should be regilded; if rubber, a new one should be provided for each case; if the tubes are smooth, clean and correctly applied, the greatest part of the operation is attained, and that is, a clean, smooth surface, undefiled, which can remain in the larynx a week, or even two, and do no harm.

Hence, if the intubation be prolonged, the reason will be in the type of the disease, and no fault of the operator.

DISCUSSION.

DR. B. R. SHURLY, Detroit—During the last five years I have performed 261 intubations, using antitoxin, with a mortality of 60, the first hundred representing a mortality of 31, the second hundred a mortality of 20, and the last thirty operations giving 2 fatalities. Both of these patients had pneumonia at the time of operation. As these cases were scattered over a period of five years, we can readily see the remarkable encouragement offered by intubation in laryngeal diphtheria. According to the observations that I have been able to make, it would seem that prolonged intubations should be considered to be those in which the tube is retained over the sixth day. It has been my practice to remove the tube on the fourth day, and sometimes on the second day. I have had only eight cases of prolonged intubation—in other words, those in which it has been necessary to reintubate. It seems to me, therefore, that under a sufficient dosage of antitoxin, at least 3000 units, the tube may be safely removed on the fourth day. Under these circumstances intubation will not be required a second time except in a comparatively small number. In the eight reintubations already alluded to the tube was retained from six to twenty-three days. In the period of five years there have been over a dozen of these cases, and all have recovered except one. This patient died very suddenly on the thirteenth day, evidently from occlusion of the tube. As all of these cases were seen in private practice, they received absolutely no care farther than the administration of the antitoxin and the intubation. The great majority of these cases occurred among the pauper population and the work has been done under the greatest difficulties. I would say that the tube should be removed on the fourth day in a normal case.

In considering the causes of prolonged intubation I would make the same classification as that described in the paper. The most important cause, to my mind, is traumatism. A number of cases met with have come to me from the hands of other operators, and they have presented extensive traumatism, sometimes a band of cicatricial tissue being found at the entrance of the larynx. A second important cause is an ill-fitting tube. The plated tubes should be avoided because any defect in the plating will lead to calcareous deposits upon the tubes, and these must cause further injury to the delicate lining membrane of the larynx.

DR. S. J. K. GOLDEN, Chicago—I have used the suprarenal extract in doses of 2 grains every three hours, and although all but one of the cases was not very bad, I found that the edema of the larynx disappeared, and the tube was coughed up or would be pulled out by the child. It is my practice to leave a piece of silk attached to the tube.

DR. I. A. ABT, Chicago—It seems to me that the sooner the tube can be taken out, the better. The practice formerly in vogue in Wiederhofer's clinic was to remove the tube every morning, and I believe it is a useful plan. I think it is an excellent practice to remove the tube during the first twenty-four hours. If the dose of antitoxin has been sufficiently large, and it should be made so, the tube can and should be removed early. I think in Chicago many of us remove the tube after twenty-four hours.

If one reads text-books and listens to his colleagues he rarely hears of difficulties met with by experienced intubators. It is true that rupture of the larynx may occur, and also pushing down of the membrane, but there are also cases of impossible intubation. Dr. E. Fletcher Ingals has reported several such, as has also Ranke of Munich, and others. Last winter I presented to the Chicago Medical Society a case in which I had endeavored to introduce the smallest tube, the child being between eleven and twelve months old. I found that I could introduce the tube into the larynx, but that if I placed my finger on top of the tube the successful completion of the operation was impossible without the employment of unjustifiable force. I, therefore, desisted from these attempts and performed tracheotomy. The child died in twenty-four hours, and the autopsy was done within a very few moments after death. I found it still impossible to introduce the tube in the larynx of the dead child. From my experience in this case I maintain that there are occasional cases in which it is impossible to insert a tube into the larynx.

DR. LOUIS BURCKHARDT, Indianapolis—The idea of performing intubation in the country and leaving the case in unskilled hands is a serious matter. I used to remove the tube after twenty-four hours, and sometimes I introduced it three or four times a day and observed very few bad results from pressure. If, as the essayist assures us, the tube can stay for six or seven days without doing any injury, it is a great practical advantage. The idea advanced by the gentleman from Chicago regarding the use of adrenalin seemed to me useful; however, it would seem to me that the local use would be better than its internal administration. Under the influence of decreased circulation the swelling of the mucous membrane will be reduced, and in some cases it might even be possible in this way to get along without intubation.

DR. E. ROSENTHAL, closing—I use metal tubes, but always have them regilded after each use of them. The cost is only about 75 cents. I have this done every time I use the tube, even though it is several times in the same case. I have used hard-rubber tubes, but have been unfortunate with them, finding that they are subject to the formation of calcareous deposits also.

AN OPERATION FOR SPINA BIFIDA, WITH REPORT OF A SUCCESSFUL CASE.*

LEONARD FREEMAN, M.D.

DENVER, COLO.

A spina bifida is a hernia of the membranes surrounding the spinal cord through a congenital opening in the posterior aspect of the spine. Very rarely there is also a defect in the bodies of the vertebræ. The sac is always filled with cerebrospinal fluid, and often contains nerves from the cauda equina, or a portion of the cord itself. The sac is usually covered by integument, but this is frequently so thin as to be translucent. The opening may be so small that it will scarcely admit the finest probe, or it may extend from the foramen magnum to the sacrum. Extensive deficiencies are, however, very rare. The tumor is usually located in the lumbo-sacral region, although it may appear at any point along the spine. It may be large or small, pedunculated or sessile.

A meningocele is a hernia of the membranes containing fluid only; a meningo-myelocele contains also a portion of the cord or its nerves; and a syringomyelia consists of the dilated cord with fluid in its central cavity. The last named variety is rare, and perhaps incurable, the other forms being usually encountered.

Clubfoot, hydrocephalus, vesical exstrophy and various paretic and paralytic conditions of the lower extremities, bowels and bladder are occasionally met with.

Although spina bifida is not a common affection, it appears sufficiently often to deserve careful attention.

* Read before the Rocky Mountain Interstate Medical Association, Denver, Colo., Sept. 4, 1901.

about once in from 800 to 1000 births, constituting about one-sixth of all congenital deformities. Rarely a spontaneous cure takes place through gradual closure of the opening, but in nearly all untreated cases rapid growth occurs, resulting in rupture followed by meningitis and death.

Many procedures have been employed for the cure of spina bifida, the principal being: Simple pressure, by means of flexible collodion or an elastic bandage; aspiration followed by pressure; insertion of setons; injection of irritating fluids, such as tincture of iodin, alcohol, etc.; clamping or ligating the neck of the sac, subcutaneously or not; and lastly, the open operation, in which the sac is surrounded by elliptical incisions and partially or completely removed according to the nature and arrangement of its contents.

After the edges of the abbreviated sac have been stitched together with catgut the operation may be completed in one of several ways:

1. The skin and subjacent soft parts are united over the opening by means of deep sutures.

2. The defect is covered by fascia and tendons, or by periosteal flaps obtained from the bony surfaces on either side.

3. Portions of bone may be chiseled from the sides of the opening and united in the center line.

4. A fragment of bone with a pedicle of muscle is obtained from the iliac crest or an adjacent rib and swung over the opening.

5. Bone or cartilage from a rabbit or other animal is utilized.

6. Very recently it has been suggested to spring a celluloid plate into the spinal defect.

As to the choice of methods, aspiration and compression are very unreliable, and their employment should be limited to tumors of small size and slow growth, with a covering of comparatively normal skin. They may also be temporarily used to prevent rupture when waiting for the patient to gain in strength or age, with the idea of doing a radical operation later on.

Injection of irritating fluids, although uncertain, has been much used and is often effective, at least temporarily. The method carries with it considerable risk, especially when the aperture into the spinal canal is large. It is asserted that hydrocephalus is peculiarly liable to supervene from the resulting irritation. Its greatest usefulness is in pure meningoceles with small openings or with pedicles which can be compressed during the injection.

Setons, or continuous drainage, should never be used. There is too little likelihood of cure and too much danger of infection. Clamping or ligating the neck of a pedunculated tumor is almost certain to give rise to sloughing and infection leading to fatal meningitis.

There remains the open method of operating, which, under the modern aseptic regime, is preferable to any other. When carefully done it is, perhaps, no more dangerous to life than most of the older procedures, while it offers a better prospect of permanent cure. It permits inspection of the contents of the sac, thus avoiding injury to the cord or its nerves, and it renders possible a solid closure of the opening. In other words, spina bifida should be treated like any other hernia, the possibility of doing this with comparative safety resting upon rigid asepsis. It was thought to be impossible a few years ago. Bardeleben, for instance, in 1867, says of the operation: "It is too dangerous in comparison with its advantages, and should be completely discarded."

In estimating the comparative advantages of the various open operations, we must consider not only the ultimate results, but the age and resisting powers of the patient. In the majority of instances we have to deal with very young and feeble babies, who will not tolerate prolonged anesthesia or extensive manipulations. Owing to this and to the minuteness and delicacy of the structures, it is often impossible to procure bone or periosteal flaps, or to do complicated plastic operations of any kind. Hence, until recently, the most practical procedure has consisted in removing the sac, stitching its remnants over the cord, and uniting the soft parts and skin above. Although this has given fairly good immediate results, it does not guard sufficiently against relapse, especially when the opening is large and the child inclined to cry.

The transplantation of bone from an animal is theoretically attractive, but it is troublesome, to say the least, and exposes the patient to considerable risk of infection. A celluloid plate is not readily cut to a size that can easily be "sprung into the opening," as has been suggested, and if it is not accurately adjusted it may slip or turn partially on edge and thus irritate or compress the nerve structures beneath.

In operating on a case of spina bifida not long ago it occurred to me to employ fine silver wire in closing the aperture in the vertebral column, and I found it admirably suited to the purpose. After placing the nerve structures and remnants of the sac within the canal, a continuous over-and-over suture was readily and rapidly inserted, from one side of the opening to the other, through the periosteum and ligaments, and occasionally through the bone itself, the stitches being close enough together to form a firm covering for the cord, incapable of displacement by any subsequent movement or straining on the part of the child.

Silver wire is always at hand and readily sterilized, and it adapts itself to any form or size of opening. That it can remain permanently in the tissues without causing disturbance has been abundantly demonstrated by the innumerable instances in which it has been used in wiring bones and suturing other subcutaneous structures.

I have elsewhere expressed the opinion that it is unnecessary to suture the spinal membranes in the majority of instances. I have followed out this idea in a number of cases without cause for regret. It applies to operations for spina bifida as well as to other procedures. The remnants of the sac fold into a mass which plugs the opening and is held in place by the covering of wire, and adhesions soon take place which render sutures superfluous. A certain amount of danger of catgut infection is thus avoided, and considerable valuable time saved.

Dr. H. O. Marcy insists on the value of the Trendelenburg position, asserting that gravity will materially assist in the prevention of the escape of the cerebrospinal fluid. This seems to be open to question, to say the least. The fluid is contained in a rigid tube, closed everywhere except at its lower end, just as if it were within a pipette with a finger over the upper opening. The only way it can run out is by depression of a fontanelle, which can not displace a great quantity, or by the entrance of blood into the cranio-spinal cavity to take the place of the fluid. In the Trendelenburg position the flow of blood into the skull would be greatly facilitated, and I am inclined to believe that the loss of cerebrospinal fluid would perhaps be greater in this position than in any other. The loss of fluid, however,

is probably much more strongly influenced by the size of the aperture between the subdural space of the cord and that of the brain, and by crying, choking or straining under the anesthetic, than it is by any particular position.

I herewith append a brief report of a case upon which I successfully operated according to the method outlined above.

Baby H., 7 weeks old, healthy, well developed, and without deformity other than spina bifida. A translucent tumor the size of a goose-egg existed in the lumbo-sacral region. The sessile sac, not larger than the end of a thumb at birth, had steadily increased in size until the integument had become translucent and as thin as tissue paper, threatening rupture at any time; in fact, a slight leakage had already taken place.

Under choloroform, in August, 1901, an elliptical incision was carried around the tumor near its base, and the sac, which was intimately adherent to the attenuated skin, was opened at once. The elongated conus was freed from its central attachment to the sac and replaced, together with some nerve filaments, within the opening, which just admitted the point of a finger. The sac was then cut away near its base, the neck freed from its attachments to the edge of the cavity and stuffed into the opening onto the cord. The aperture was then whipped over as described above with No. 27 silver wire, the soft parts and skin being brought together with deep silkworm-gut sutures. The wound was sealed with collodion and supported as well as possible with a compress and bandage. The further progress of the case was uneventful and led to satisfactory recovery. In spite of primary union taking place there was some rise in temperature, as has frequently been noticed by others.

Although the immediate result was everything that could be desired, the ultimate fate of the child is yet to be determined. That the tumor itself will recur is extremely unlikely, but it is a fact that many such cases finally succumb to hydrocephalus.

CASE OF THOMAS P. BODEN, THE CONSUMPTIVE IRISH IMMIGRANT.

ITS MEDICAL, SOCIOLOGICAL, INTERNATIONAL AND HUMANITARIAN ASPECT.

S. A. KNOPF, M.D.

NEW YORK CITY.

If Mr. Francis Tracy Tobin, the counsel for Thomas P. Boden, the Irish immigrant now detained by the immigration authorities because he is consumptive, should succeed in bringing this case before the Supreme Court of the United States, this, the highest tribunal of our country, will have to decide a most momentous question. The issue involved not only affects the few consumptive immigrants who may arrive at our ports, but it affects the several million American citizens suffering from pulmonary tuberculosis.

On the strength of a declaration of the surgeon-general of the Marine-Hospital Service that pulmonary tuberculosis is a dangerous contagious disease, the superintendent of immigration issued last June an order that in future immigrants with tuberculosis of the lungs must be debarred from all ports of the United States regardless of boards of special inquiry, which heretofore had used their discretion in the matter. Formerly the board of special inquiry at this port, after receiving the report of a case of tuberculosis from the chief of the medical division of the immigration service of New York, could exercise discretion as to the admission of the person, and there have been instances in which a child ill of the disease has been permitted to land with its parents; but henceforth no one with consumption will be admitted to the country. This rule applies to alien passengers in the first and second cabins as well as to those in the steerage.

Is this declaration issued by the surgeon-general of the Marine Hospital Service, and strengthened by the authority of the Treasury Department, based on scientific observation? Is this opinion shared by other great authorities on the question of tuberculosis and the medical profession of the United States in general?

Ever since the discovery of the tubercle bacillus it has been demonstrated by clinical and bacteriological experiments all over the civilized world that the germ alone is the direct cause of the disease, and without its presence tuberculosis can not be conveyed. The bacilli are usually contained in the expectoration, more rarely in other secretions, very rarely in the muscular or osseous tissue. Thus the contact *per se* of a consumptive individual does not transmit the disease, and pulmonary tuberculosis is not a contagious but only a communicable malady. The destruction of tuberculous expectoration and other secretions, also of tuberculous food substances, suffices to do away with all danger of infection and transmission. Therefore, there is no scientific basis on which to classify pulmonary tuberculosis among the dangerously contagious diseases, and it is contrary to the results of experience and experiments of all who have studied the question thoroughly.

Now, what have the great European and American medical authorities to say on this subject? Koch, the discoverer of the tubercle bacillus, says in this connection in his recent London address, which I quote verbally, since it was delivered in English: "A consumptive who coughs out tubercle bacilli is not necessarily a source of infection on that account so long as he takes care that his sputum is properly removed and rendered innocuous." Professor Herman M. Biggs, whose splendid work in the prevention of tuberculosis has been most highly commented on by Koch in the same address, declares in the circular issued by him through the New York Health Department: "If the matter coughed up be properly destroyed a person suffering from consumption may frequently not only do his usual work without giving the disease to others, but may also thus improve his own condition and his chances of getting well." This circular has served as a model to many health boards in this country and abroad. Concerning the action of the Treasury Department in regard to tuberculous immigrants—not paupers—Dr. Briggs pronounced it unscientific, unwise, unnecessary and inhumane. Dr. T. Mitchell Prudden, professor of pathology and bacteriology at the College of Physicians and Surgeons, declares distinctly that pulmonary tuberculosis is a communicable and not a contagious disease.

For the United States government to declare pulmonary tuberculosis to be a dangerously contagious disease, in spite of the opinions of these great authorities, stamps several millions of American citizens suffering from consumption with a stigma wholly undeserved. That the general profession is in thorough accord with the opinion expressed by Professors Prudden and Briggs may be gleaned from editorials which appeared in three of the leading American medical journals. Dr. Frank P. Foster of the *N. Y. Medical Journal* says in an editorial of June 22: "It is our conviction that the United States Bureau of Immigration, if it has really determined upon the course of indiscriminately excluding consumptive immigrants from the country, as has been announced, has been ill-advised. . . . What the people need to be taught—and they have already partly

learned the lesson—is, not that pulmonary tuberculosis is a monster to be fled from, but that it is a danger that can be effectively overcome. Even if this were not true, it remains a fact that the policy of selfishness and inhumanity, pursued to the end, rarely if ever proves to be for the general welfare of those who follow it." Dr. George M. Gould, in *American Medicine,* of November 30, says in the leading editorial entitled "The Deportation of Consumptive Immigrants": "We think professional and lay opinion will not justify the exclusion of tuberculous immigrants on the simple ground that the disease is 'contagious' or 'communicable.' It is only so in such a low degree that the severe measure of exclusion for this reason alone seems unjustifiable." Dr. George H. Simmons, editor of THE JOURNAL A. M. A., in criticising the indiscriminate exclusion, says: "Even hopeless consumptives may sometimes bring some good," and cites Robert Louis Stevenson as an example.

The government decision to classify pulmonary tuberculosis as a dangerously contagious disease has only been in operation a few months, but it has already had its consequences by increasing the fear of people to associate with consumptives. Healthy employes have been discharged because some one of their near relatives with whom they were living were reported to their employer to be suffering from consumption. I have learned of numerous similar cases and very recently two came under my personal observation. A sewing woman who had been employed frequently by a wealthy family mentioned incidentally that her sister was being treated for tuberculosis of the lungs, but was getting along very nicely. The result was that the poor woman was discharged and never employed again by the same family. A similar case happened within this week with a poor washwoman. How much suffering and hardship may thus be daily created only those who come in contact with the poor consumptives can appreciate. All physicians will approve of earnest and intelligent measures to prevent the spread of tuberculosis, but to exaggerate the danger by declaring consumption, which is a chronic, preventable, curable and only a communicable affliction, to be a dangerously contagious malady, we only create another disease in the minds of the people which may justly be called phthisiophobia.

By excluding pauper immigrants, whether tuberculous or not, the immigration authorities do their duty, and every loyal American citizen must approve of it; but by excluding consumptive aliens of means, or at least such who can give evidence that they will not become a burden to the community, we may subject ourselves to retaliatory measures on the part of other governments and wealthy American pulmonary invalids may no longer be allowed to enjoy the hospitality of foreign health resorts. Thus this case has an international as well as a national aspect.

Concerning the humanitarian view of the case I have to add but little to the expression of Professor Briggs and Drs. Foster and Simmons. Since the ruling of the Secretary of the Treasury that pulmonary tuberculosis is a dangerous contagious disease within the meaning of the statute, all certified cases of tuberculosis are returned without discrimination. Parents may thus be separated from their children, brother from brother, sister from sister, friend from friend, because of a law founded on an unscientific basis, contrary to all sociological interests of our own country, derogatory to our interests and in our relation to other countries, contrary to the American spirit of justice and humanity.

Have those who by this decision stamped every American consumptive as one afflicted with a dangerous contagious disease ever thought how really few families there are who have not at least one, more or less near, relative or friend who is a consumptive? Tuberculosis is the most frequent of all diseases and it is most prevalent in its pulmonary form. It is a disease of the young and the old, the poor and the rich, the East and the West, the North and the South.

May the wise judges of the Supreme Court, who it is to be hoped will soon be called to consider this matter, view it in all its aspects and decide it in the light of our present knowledge which makes the consumptive not a hopelessly ill individual, afflicted with a dangerously contagious disease, whose contact we have to fear, but which declares him only suffering from a communicable and at the same time easily preventable, and in many instances very curable disease.

THE USE OF TROPA-COCAIN IN SPINAL ANESTHESIA.*

WILLIAM P. TILLING, M.D.
LITTLE ROCK, ARK.

At the last meeting of the Arkansas State Medical Society I read a paper on my experience with spinal anesthesia and reported 23 cases in full. In that paper I gave the technique and method of preparation in detail, and will not now consume your time by their repetition.

Since last May I have had a varied experience with spinal anesthesia, having used the method on 80 different occasions. These comprise six obstetrical cases, of which three were instrumental deliveries—four multiparæ and two primiparæ. Two of these suffered from lacerated perineum—one a primipara, the other a multipara. In these six cases twenty minims of a 2 per cent. solution of cocain hydrochlorate was injected. These cases did not differ from any of the others on which I had used this method, the anesthesia appearing in the usual length of time and lasting one hour and ten minutes in the shortest case and one hour and forty minute in the longest.

Twenty-five other cases were for the following operations, namely: perineal abscess, two gunshot wound of the foot and shattered bone removed, one; hemorrhoids, six; curettage, nine; lacerated perineum, two; lacerated cervix, two; dilatation of urethral stricture, one; amputation of foot, one; removal of portion of necrosed tibia, one. In these cases I used cocain hydrochlorate in the usual manner.

The largest amount of cocain hydrochlorate used in any case was twenty minims of a 2 per cent. solution, or 2/5 grain, producing anesthesia lasting one hour and fifty-six minutes; the smallest amount used was ten minims of a 2 per cent. solution, or 1/5 grain, producing anesthesia lasting only twenty-three minutes.

I will now confine myself to the 49 cases in which I used tropa-cocain and to which this paper refers.

In my first paper I mentioned that H. Schwartz of Leipsic reported, March 2, 1901, having used tropa-cocain in sixteen serious operations, with none of the toxic effects usually observed in the use of cocain hydrochlorate. Dr. Willy Meyer[1] of New York reports having used tropa-cocain on three different occasions with all the satisfaction that could be desired from an ideal

* Read before the Northwest Arkansas Medical Society, at Fayetteville, Ark., Dec. 3, 1901.

1. Medical News, April 13, 1901.

anesthetic. These flattering reports stimulated me to try it. Many of my cases were patients of prominent surgeons in the city and all were at the Pulaski County Hospital. Among the operations were: three laparotomies, three amputations of legs, one amputation of thigh, two amputations of toes, ten curettings, one resection of necrosed rib, one variocele, three excisions of indurated inguinal glands, six dilatations of strictures of urethra, one fistula in ano, five hemorrhoids, three lacerated cervix, four openings of deep abscesses, three curettings of old indolent ulcers, one hernia, two lacerated perineums;; total, forty-nine.

In 1891, Geisel discovered tropa-cocain in Javanese coca leaves, after which it was more closely studied by Liebermann, later Willstatter discovered a way of preparing it from tropin, a fractional product of atropin and hyoscyamin. It is now universally prepared by the decomposition of atropin and hyoscyamin, and occurs in colorless needles readily soluble in water.

It admits of thorough sterilization by boiling, a virtue which is widely proclaimed for it; yet when it is boiled from fifteen to twenty minutes it is my opinion that the anesthesia lasts only one-half as long as when it is prepared by heating the cocain solution in an autoclave or water bath which is brought to 176 Fahrenheit for fifteen minutes, then allowed to cool three hours. This procedure is repeated four or five times, having the cocain solution in a glass-stoppered bottle. This method is a little slow but it insures a thoroughly sterile solution. (I have repeatedly boiled the solution and find it about one-half the strength it was before boiling.) Tropa-cocain is less than half as toxic as cocain hydrochlorate, the relation between toxicity and dose is more constant with tropa-cocain, and therefore the unexpected toxic effects are much less liable to be met with.

Recovery from its effect is much more rapid. Upon the nerve centers it acts by first stimulating, then paralyzing from the brain down in decreasing degrees, but it prevents complete paralysis of the spinal cord or respiratory centers. I think its action is a little slower than cocain hydrochlorate. I find in using cocain hydrochlorate the anesthesia usually appears in from four to ten minutes, while with tropa-cocain it seldom appears earlier than ten minutes. After trying eucain B., cocain hydrochlorate and tropa-cocain repeatedly, I believe that tropa-cocain is far superior for spinal anesthesia—in fact I believe it can in many cases replace cocain hydrochlorate.

After an injection of tropa-cocain there is usually no complaint of thirst, heat, vomiting, pallor, nausea, perspiration; no marked increase or decrease in the pulse; no facial expression of anxiety; no marked increase or decrease in respiration; no dyspnea; but I have noticed relaxation of the sphincters, with involuntary evacuation of feces, in two of my cases, which occurred while the patients were on the table; in one the bowels continued to move after being returned to bed. Tuffier recommends plugging the bowels with a tampon to avoid this inconvenience. In one of my cases the patient complained of the motion in his bowels, which caused him great inconvenience. Fowler also calls attention to the vigorous peristalsis of the bowels. I have as yet noticed no idiosyncrasy for the drug.

Schwarz reports using five-sixths of a grain at one injection with complete anesthesia lasting two hours, but Meyer reports shorter periods of anesthesia in his cases and the use of one and one-half grains at two injections, fifteen minutes apart, in the same person, which is to my knowledge the largest amount ever injected. Yet this amount did not produce any more severe symptoms than are sometimes witnessed with an injection of twenty minims of a 2 per cent. solution of cocain hydrochlorate.

The largest amount I have ever used is one grain—in one case in a rectal operation, and in another in curetting a large ulcerated surface. It produced anesthesia lasting three hours and eight minutes in one, and one hour in the other. The difference in the length of anesthesia is, in my opinion, due to the fact that the solution lasting only one hour had been boiled; and the other lasting a little over three hours had only been heated to 176 F. in a water bath. It is my belief that to obtain perfect anesthesia we can safely count on one-sixth of a grain of tropa-cocain to produce anesthesia fifteen minutes, and sometimes even longer.

I have given a hypodermic injection of one-fiftieth of a grain of nitro-glycerin immediately before the spinal injection, and have used the sodium-chlorid in combination with the tropa-cocain as used by Meyer; but my experience with it has not been very gratifying, the patient invariably complaining of the intense headache after its use. I now use hyoscin hypodermically about ten minutes before the spinal injection, and leave out the sodium chlorid. My method of preparing the solution is to allow one grain of tropa-cocain for every dram of water; and always prepare a little more than is needed. Thus every ten minims of the solution contains one-sixth of a grain of the drug.

I predict a very useful field for spinal cocainization in surgery, and from my experience I do not hesitate to urge its use with as much confidence of success as I do chloroform or ether. I do not think it will ever be successfully used in abdominal surgery, on account of the tendency to vomit and intestinal peristalsis; neither am I favorably impressed with its use in obstetrics. However, in obstetrics, I could not be emphatic since my experience extends only to ten cases.

OUR HOSPITALS.*

H. D. NILES, M.D.

GYNECOLOGIST TO THE HOLY CROSS HOSPITAL.
SALT LAKE CITY, UTAH.

The evolution of the hospital—including the growth and development of hospital work—has, in recent years, been so rapid and so far-reaching that comparatively few people in or out of the profession realize that these institutions have already become one of the most potential factors in progressive medicine, and that the time is not far distant when they may exercise an influence over the destiny of medicine greater than all others combined.

Originally intended by their benevolent founders simply as temporary homes where the sick poor might secure proper medical care and nursing, the peculiar advantages of hospital appliances, methods and nursing soon became favorably known to all classes; good men early became identified with the enterprise; medical students sought these places for clinical instruction; people of means contributed to their support and the hospital enterprise continued to grow in prosperity and usefulness.

Hospital boards and the general public, who have been content to measure this prosperity and usefulness by the number of patients treated, the lives saved, and suf-

* Read before the Western Surgical and Gynecological Association, Chicago, Dec. 17 and 18, 1901.

ferings mitigated in a given period, are well satisfied with the results and see no occasion for changes in methods or purpose. Such an estimate is manifestly inadequate, since the largest and best part of a hospital's good work can not be thus computed or even comprehended by the non-professional mind.

Even the profession as a whole, each member of which employs in his daily practice, methods of diagnosis, means of treatment, operative procedures, bacteriologic and microscopic data, and statistical information derived directly from the hospital, is prone to underestimate the power the hospital possesses as a promoter of medical progress or the good it accomplishes in the cultivation of a spirit of scientific investigation and in furthering the efforts of good men to advance medicine. It has been said, and I think truly, that if we as physicians should forget all the knowledge gained by the past fifty years of hospital achievements, medicine would be set back at least a quarter of a century, while to eliminate the hospital's influence upon progressive medicine for the next fifty years and depend upon individual work alone would mean the return of empiricism.

The general practitioner who is, has been, and I trust always will be, regarded the highest type of physician, and who comes into contact with the largest proportion of human sickness and suffering, must now confess his dependence upon his hospital colleagues, or fail in doing his full duty to his patients. It is preposterous for any one individual to claim to be able to attend to a large practice, keep himself in touch with the best thoughts in general medicine, surgery, and the several specialties, and perfect himself in bacteriology, microscopy, hematology, *x*-ray work, pathology, and certain unusual operative procedures, and at the same time conduct the laboratory work incidental to such a practice.

He might, if quite frank, confess further that it is from his association with these workers in their special fields, his acquaintance with their methods and lines of thought, and the original researches and discoveries made in their laboratories, that he receives a large part of his practical knowledge and skill and his greatest inspiration to advance in his professional studies and work.

This is distinctly an age when great combinations of special forces rule the world, control all its enterprises, and govern the destinies of every undertaking of any magnitude. In medicine there is to-day a greater need for an exhibition of this same progressive spirit of the times than ever before. We must *combine* our special forces if we are to meet the necessities of the new existing conditions. For now as never before, it is apparent that our next great advances are to come from and will be dependent upon those researches, experiments, investigations and studies that can be prosecuted only where an abundance of clinical material and painstaking laboratory work are associated; where the clinician and operator can be in the closest touch with the bacteriologist, microscopist and pathologist; where the practical conclusions of the experienced man may be fairly compared with the theoretical deductions of the recent graduate; where the views of the skilled specialist and the general physician and surgeon are broadened by frequent consultations; where trained assistants and needed equipments are provided and it is possible to have accurate records kept and reliable statistics compiled. This combination is essential to our future progress as well as to our present efficiency, and can be provided only in our hospitals and through the labors of such hospital workers as are willing to concentrate their thoughts and limit their efforts to a narrow part of the great field of medicine, and leave to the general practitioner and family physician the wider and more practical application of the sum of their united labors.

It is very evident to the minds of medical men familiar with the situation that the methods and management that have served our hospitals so well when their purpose was limited to the care of the sick within their walls will not suffice if our hospitals are to meet our present needs and fulfill their possibilities as a great system of scientific institutions distributed throughout this country, where not only the favored few but the whole profession with all the sick intrusted to their care may feel the results and participate in the benefits. It is not enough that our hospital authorities provide and equip rooms where a promiscuous assemblage of physicians may be permitted to occupy their leisure moments trying to sustain the scientific reputation of their institution by unsystematic and irregular work.

We need to be as methodic, discriminating and earnest in our efforts to establish and maintain a truly scientific institution as those who control and direct our other institutions of learning. Our needs are somewhat similar and quite as great; and it is fair to presume that if much the same methods were applied with equal judgment the results would be as satisfactory.

Viewed from this standpoint, the staff would also be the faculty; the departments would be transformed into definite and distinct realities, each presided over by a member of the staff, who would be a specialist. The positions would be filled by men selected less on account of their personal popularity and more because of their proficiency in particular lines and devotion to certain branches. The size of the hospital staff would be reduced to conform to its actual needs as a scientific institution, for upon its standing as such, more than the bulky size of its staff, the hospital would depend for a following. The staff perfectly adjusted to the hospital's requirements would bring a harmony of action, a unity of purpose, and a general effectiveness not conspicuous in the large unwieldy staffs of to-day.

So long as a hospital measures its own usefulness by the number of patients treated, the standing of each member of the staff will be estimated largely by the size of his personal following; and the commercial spirit will rule both the institution and the individual to the exclusion or great detriment of scientific work. It so happens that many hospital men are engaged in special lines of study and investigation that prevent their attracting or attending many patients; yet the immediate and remote results of their work may be of the utmost importance to progressive medicine. These men deserve and should receive every encouragement; and it is manifestly unfair that their positions, income or professional standing should be dependent upon the number of patients they bring to the hospital. One of the effects of introducing the educational feature into our hospitals would be a more equable adjustment of credit and remuneration, so that the laboratory worker as well as the operator would be fairly appreciated and compensated.

Our hospital statistics are already quite an important factor in medical literature, but with the scientific spirit prevailing over the commercial, the records of the work and achievements of these institutions might, and I

believe would, exercise an influence upon medical thought greater than all others combined.

But the fixing of a new purpose upon an old institution under the control of kind and well-meaning friends, who are content with the old aims and distrustful of the new, will require something more than college methods or college training. The medical profession can not reasonably expect to have much of a voice in this or any other reform measure until they revolutionize their present business policy and methods.

The prevailing ideas deprive them of not only the proper recognition and the adequate pecuniary recompense, but of the legitimate influence that justly belongs to the faithful and effective work of a learned profession. For this unfortunate state of affairs we can blame only our own defective business foresight and tact, since for years we have been educating and drilling the people to think lightly of our work, our comfort and our aspirations.

In the most prosperous country in the world, where the public is abundantly able to bear all its burdens, even to caring for its sick poor, the members of the medical profession, in and out of the hospital, have at all times, with and without provocation, held themselves up as shining targets for the impecunious, the mean-spirited and the unscrupulous to practice their impositions upon. They have sought out and assumed unnecessary responsibilities and cares without pay or reward. When in need of public or legislative aid they have intuitively and invariably attached themselves to the side of the minority. Individually and collectively they have rarely missed an opportunity to demonstrate their business incapacity. For many years the business methods of the profession have apparently served but one useful purpose, viz., as an example for the youth of our country to shun; and it is a significant fact that the only organization to-day that has thought well enough of these methods to adopt them is the Salvation Army.

Is not the physician who gives $25,000 worth of his services to the hospital entitled to the same consideration as the rich benevolent layman who donates his $25,000 in cash? Should not the ten physicians who thus contribute $250,000 receive the same recognition that is accorded the multi-millionaire whose gift of a quarter of a million costs him no real sacrifice of time or enjoyment? Fairly estimated, do not our services justly entitle us to a voice in all professional questions in and out of the hospital, second to none, even to that of those benevolent individuals, charitable organizations or religious societies that founded these institutions?

If we are ever to secure this voice—and we need it now—we must formulate and adopt a business code that shall not only meet the highest requirements of the ethics of the profession but at the same time command the respect and win the confidence and support of this twentieth century public.

It must be admitted that a very considerable majority of the profession is not in close sympathy with our hospitals at present, and not a few are disposed to regard these institutions as the abiding place of a favored few where the outside physician may contribute much and get little in return. Awaiting a fair and amicable adjustment of these differences, imaginary and real, and the securing of the cordial coöperation of the united profession, all these physicians and their patients are deprived of available hospital advantages, of which they are in the greatest need, and our hospitals are denied the very support most essential to their greatest success. In deciding such cases—and they should be decided—the common interests of the many should outweigh the individual interest of the few, and each of us should be willing to make any reasonable sacrifice or concession in the interests of our profession, our patients and our institutions.

Time will not permit our dwelling upon the many obstacles that threaten to retard the advance of our hospitals to the exalted position they can and should occupy, but among the most important questions that call for solution may be mentioned:

1. How shall the financial and professional relations between our hospital men and our general practitioners be adjusted so that *all* may be interested in the welfare and participate in the benefits of specialized hospital work?

2. Is there any good reason why our hospital men and hospital authorities—sheltered as they are behind a strong combination—should be exempt from the application of the same "Code of Medical Ethics" that governs the conduct of the profession generally?

3. Is the general practitioner to have any place in the hospital of the future?

4. Is the specialist of the future to have any place out of the hospital?

5. Do we not need more hospitals and fewer colleges; better doctors and fewer graduates?

6. In the present state of our knowledge, when the life and health of our patients so often depend upon special knowledge and skill or nursing, is any physician justified in assuming the responsibilities of a general practice except he be in touch with some hospital or hospital worker?

7. In view of the important relations our hospitals are destined to hold with progressive medicine, is it not about time the professional mind began to dominate in the control of these institutions?

These are a few of the many questions that are suggested to the minds of all who thoughtfully consider the hospital work of the past and present and are led to appreciate the marvelous possibilities of the future.

The object of this paper is not to volunteer instruction, but to arouse, if possible, a more active interest in an institution that promises with our aid to become one of the most influential elements in the medical world—its labors, its literature, its thought, its discoveries and its advances.

"How are our hospitals to meet the needs of modern medicine?" is, to my mind, the most important question before the profession to-day. I am quite aware that its satisfactory solution will not be the work of a day, nor of a single individual, nor of any clique or society of physicians; but I do believe that the medical profession as a whole, if united and determined, can decide upon and dictate an answer that should render the achievements of this twentieth century the most memorable in the history of medicine.

Spontaneous Evacuation of Cyst in Pancreas.—Monin describes in the *Lyon Méd.* of September 15, the case of a woman of 28 who had passed through three pregnancies in spite of the existence of a large cyst which had developed ten years before, and was supposed to be in the mesentery. Eighteen months after the last childbirth, diarrhea suddenly appeared and the tumor rapidly diminished in size until it had completely disappeared. The retrospective diagnosis indicated a cyst in the pancreas which had finally emptied itself spontaneously into the intestines.

A NEW METHOD OF DEALING WITH BOWEL PERFORATIONS COMMUNICATING WITH PELVIC ABSCESSES.*

THOMAS W. HUNTINGTON, M.D.
Professor of Surgery in the Medical Department of the University of California.
SAN FRANCISCO, CAL.

The problem of dealing with old bowel perforations in the presence of purulent collections in the pelvic area is fraught with many perplexities. I refer particularly to the fistulous communications between the bowel and tubal or tubo-ovarian abscess sacs. Such lesions present a twofold aspect: 1, as regards the immediate risk to the patient's life from general septic peritonitis; 2, as to the likelihood of establishing a permanent fecal fistula with its external outlet through Douglas' pouch or through the abdominal wound.

In this class of cases the visceral peritoneum, for several centimeters on either side of the perforation, has usually become thickened by a deposit of plastic material and has virtually lost its identity as a serous membrane. Immediate closure of a bowel perforation with such an environment by any of the suture methods, has in the majority of cases proven disappointing. The intestinal coats are so altered as to insure, in a majority of instances, reopening of the perforation before many hours have elapsed. On the other hand, experience has taught that a bowel resection at such a time is a most formidable if not hopeless undertaking. Two disastrous experiences in the past deeply impressed me with the necessity of devising a more rational method of dealing with such lesions.

It is a matter of general experience that a fecal fistula, where the bowel opening is closely approximated to the parietal peritoneum in the floor of an abdominal wound, tends to spontaneous closure without subsequent embarrassment. This idea is amply borne out by observing a large number of fecal fistulæ associated with appendicular abscesses, which, as a rule, close without operative interference. This consideration has led me to what I believe to be a safe and surgical plan of procedure in such an emergency.

The following case admirably illustrates the plan which I had outlined and which will be definitely detailed below.

Mrs. H., age 35, has suffered for the past five or six years from pelvic cellulitis, with occasional acute attacks. These have become more and more frequent. For the past year she has suffered constantly. I saw her in consultation about Sept. 20, 1901. At that time she had become greatly emaciated; skin was dry and markedly pigmented; tongue was dry and furred. Temperature ranged from 99.5 degrees to 102; pulse 106. Bowels were constipated. Menstruation was irregular and painful.

Physical Examination: The abdomen was flat; the abdominal muscles on left side were rigid. A tumor was perceptible above the pelvic brim over the sigmoid flexure, irregular in outline and excessively tender under pressure. Slight tenderness existed over right tube and ovary. Uterus was fixed. Neither ovary nor tube could be outlined per vaginam.

Provisional Diagnosis: Left pyosalpinx with probable destruction of corresponding ovary. Laparotomy was advised and the operation was proceeded with on Sept. 22, 1901.

On median line incision, the right tube and ovary were found to be the seat of inflammatory trouble and were removed. On the left side a tubo-ovarian abscess was located high up in the pelvis. To the abscess wall the sigmoid flexure was firmly adherent for a distance of four or five inches.

Patient was placed in Trendelenburg's position. Abdominal contents were carefully isolated by gauze pads. The adherent colon was then carefully dissected from the abscess sac. During this procedure it was found that a communicating track existed between the abscess and the bowel. This had been temporarily closed, but as the bowel was separated there appeared an old perforation of the colon about one centimeter in diameter. At this juncture the abscess wall collapsed and pus escaped freely into the pelvic cavity. This was removed by careful sponging. The bowel perforation was temporarily closed by a purse-string suture. The abscess sac was dissected out and removed. Pelvic drainage was secured by vaginal route.

The ends of the suture used in closing the bowel perforation had been left uncut. To these I attached a small sponge pad for the purpose of identification. This was dropped into the pelvic cavity, and the median line incision closed. An anterior colostomy incision was then made over the sigmoid. Through this the buried sponge was recovered and the bowel perforation was drawn up into view. The bowel was then carefully sutured to the parietal peritoneum, thereby completing a formal colostomy. The median incision was sealed and a loose dressing applied to the lateral opening. Time of entire procedure was two hours. Time of second step was twenty-five minutes. Reaction was fairly prompt, and at the end of the third day the patient's condition was excellent. Median line incision healed without interruption. All fecal matter passed by artificial opening subsequent to operation. I had hoped that this would not be permanent, but owing to the sagging of the colon above the colostomy a spur was formed, closing the lumen of the bowel below the artificial opening. Temperature fell to the normal point; her appetite was regained and her general condition improved rapidly.

On October 23 her condition was such as to warrant an attempt at closure of the artificial opening. An elliptical incision was made encircling the artificial anus, the peritoneum being opened throughout. Through this the colon was drawn out and exposed for a distance of three inches above and below the perforation. About four inches of the colon was resected. An end-to-end anastomosis was accomplished by the Connell suture method. The abdominal wound was then closed by through-and-through sutures.

Time of operation was one hour and thirty minutes. The wound healed without incident. Rectal feeding was resorted to during the first three days, after which time liquid food was administered by the mouth. Bowels moved voluntarily on the fifth day and the patient left the hospital in perfect condition on the fourteenth day.

So far as I know the procedure in this case has never heretofore been suggested. While immediate closure of a bowel perforation in cases similar to the foregoing has within my knowledge and experience been occasionally accomplished, such fortunate result has not been the rule. While I have had no opportunity of carrying this investigation further, I am strongly of the opinion that the general plan pursued in this case

* Read before the California Academy of Medicine, December 24, 1901.

will prove of value in dealing with a considerable number of complications involving fecal fistula. It was my original intention to have left the provisional purse-string suture undisturbed, thus placing the closed orifice of the perforation in the floor of the colostomy wound, with the hope that the patency of the colon lumen would have been re-established and rapid repair have been accomplished. During the manipulation, however, the provisional suture was torn out and an artificial anus was established at once.

Incidentally, I wish to express my high appreciation of the work done by F. Gregory Connell, bearing upon the matter of intestinal suture as described by him. (THE JOURNAL A. M. A., Oct. 12, 1901.) I have thus far employed the Connell method in two cases with the utmost satisfaction. Its technique when once fully understood is simple and its various steps can be completed with a fair degree of rapidity. So far as safety is concerned, I believe it is capable of demonstration that the placing of the knot within the lumen of the bowel is a most important consideration.

406 Sutter Street.

A CASE ILLUSTRATING PLASTIC SURGERY OF THE EYELIDS.

CASSIUS D. WESCOTT, M.D.

Assistant Professor of Ophthalmology at Rush Medical College; Assistant Ophthalmologist to the Presbyterian Hospital, etc.

CHICAGO.

During my service at the Presbyterian Hospital in the summer of 1900, Miss Sarah McB., aged 38, presented

Fig. 1.—August 6. After first operation on cheek.

herself for the correction of deformities of the eyelids resulting from burns, which she had received six months before by falling into a grate fire in a fainting fit. As shown in photograph No. 1, the soft parts had suffered severely on both sides of her face, a portion of the right wing of the nose had been lost, and there was complete ectropion of the upper lid of the right eye and almost complete eversion of the lower lid of the left eye. The brow just over the nose was so deeply burned that a portion of the external surface of the frontal bone had necrosed and come away during the dressing of the burns. The new skin which had formed in this region and over the right eye was extremely thin and poorly nourished, and the ciliary border of the lid was tightly

Fig. 2.—September. One month after operation for restoration of upper lid of the right eye.

drawn up and firmly adherent to the periosteum. In the left cheek was a very thick keloid scar, which sent an arm to the lower lid of the left eye, dragging it down and out and away from the globe. The cornea of the right eye was constantly exposed to dust and the danger of trauma and only an excessive flow of tears, which kept the epithelium moist and washed away the dust, saved it from inflammation, ulceration and the usual sequelæ.

As there was a broken-down and suppurating area over the right brow, it was not deemed advisable to begin work there, and the first operation consisted in the removal of the large scar of the left cheek and the restoration of the lower lid of the left eye to its normal position, by a free dissection and crowding up of the entire cheek. This was done July 6 and the immediate result was quite perfect; but, as so often occurs in plastic surgery in all parts of the body, a portion of our flap sloughed near the outer end of the lid and the final result was an ectropion almost as complete as there was in the beginning. The condition of the patient's heart and kidneys did not permit of another anesthesia until August 15, when I made a free dissection of the upper lid of the right eye, stitching it to the lower lid and bringing down a large flap from the forehead, with pedicle on the temple, to cover the extensive surface exposed. After this flap from the brow was carefully stitched in place, the area from which it was taken was filled in with Thiersch grafts, as shown in photograph No. 2, which was taken one month later. Healing after this operation was very satisfactory, and on October 6

the left lower lid was restored to its normal position by making a large V-shaped incision below and to the outer side and converting this V into a Y by freely dissecting and crowding the flap up, thus forcing the free edge of the lid into its proper position. Healing was slow, but the ultimate result has been good. Both eyes are closed during sleep and photograph No. 3 shows the patient's appearance one year after the operation on the right eye.

When all tenderness had disappeared from the scars, the patient was referred to Mr. Hugo Ad. Oldenborg for massage, and there is good reason to believe that his careful and systematic treatment was of great assistance in obtaining the excellent final result.

I am also indebted to Dr. A. I. Bouffleur for his valuable assistance in my operations, and for undertaking the repair of the nose; the appearance of which he improved very much.

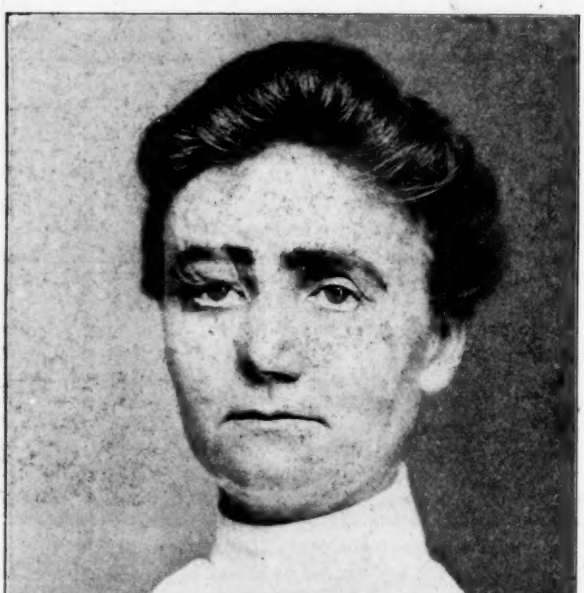


Fig. 3.—September, 1901. One year after last operation.

31 Washington Street.

THE X-RAY IN DETERMINING THE LIMITS OF THE FRONTAL SINUS.

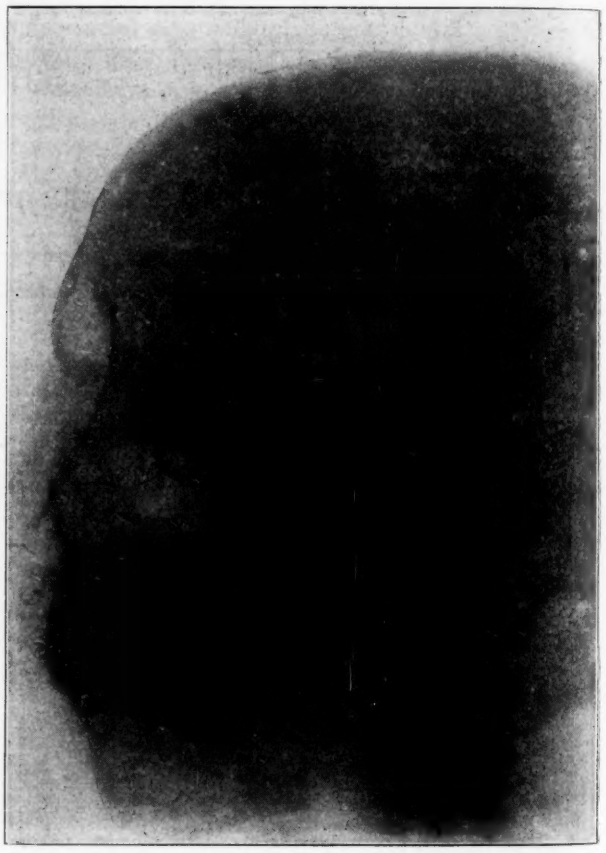
JOHN HAROLD PHILIP, M.D.

SAN FRANCISCO.

In the June number of the *Laryngoscope* I note the following from the pen of Dr. Jonathan Wright: "I have lately seen the frontal bone perforated and the dura mater wounded with disastrous results in a case in which the frontal sinus was lacking on that side."

Dr. Howard A. Lothrop, of Harvard University, after carefully examining 250 frontal sinuses, from dissecting room material, concluded that there was no external landmark defining the superior limit of the sinus; that the external angular process of the frontal bone was not often the limit of the sinus laterally; that in the majority of cases the septum (between the sinuses) deviated to one side or the other within a range of five millimeters or even more, notwithstanding its frequent median position inferiorly; that the plane of the septum was roughly antero-posterior, passing between the anterior and posterior surfaces, but occasionally it might so deviate that one sinus would lie partly overlapping the other, even to an extent of 2 centimeters; that there were no absolutely certain guides by which the degree of development of the frontal sinus in the adult could be determined before attempting to expose it.

Previous to entering a frontal sinus some months since I secured three frontal bones and attempted to explore with my drill that sinus corresponding to the one on which I was to operate. I was amazed to find that No. 1 had almost no sinus on the left side; that the sinus on the left side of No. 2 extended not more than 3 millimeters beyond the median line and that there was no septum; there was no communication with the left nasal cavity. No. 3 seemed normal. One can not well overestimate the surgical importance of such anatomical anomalies, whose frequency is unquestioned.



As an aid to determining previous to operation, the limitations of the frontal sinuses I suggest the *x*-ray.

The radiograph illustrating this article was taken for me by Mr. Cox of the San Francisco Polyclinic. Length of exposure was eight minutes; distance of tube from plate, 20 inches; plate over-developed and the print was sun-printed and overtoned. My patient's head lay obliquely on the plate and the affected sinus lay undermost. This explains the position of the canula, its tip extending apparently beyond the posterior wall of the sinus. For cosmetic reasons I entered the sinus from within the nasal cavity. (My patient was a young woman of 24.) Wishing to be certain that my canula was not in an anterior ethmoidal cell, I had a radio-

graph taken, when to my surprise I saw clearly defined the limits of my sinus.

Incidentally it may be of interest to note that the antrum on the left side served apparently as a reservoir for the pus coming from the corresponding frontal sinus and anterior ethmoidal cells. I removed the anterior one-third of the middle turbinate and irrigated the antrum through the ostium maxillare. After a few days' treatment the fluid used for irrigation was returned almost clear in the morning, but rather cloudy in the afternoon, although only one-third as much time had elapsed between the washings. I plugged with gauze the natural opening into the antrum and was rewarded by getting no evidence whatever of pus as long as it remained there. This proves, it would seem, that the antrum in question was not the seat of an inflammatory process. It only ceased discharging pus when it no longer gravitated into it from the anterior ethmoidal cells and frontal sinus, by way of the infundibulum. The right antrum was also involved; it was entered through the alveolar process and a tube left in for drainage.

Clinical Report.

TWO UNCOMMON CASES OF NASAL TUMORS.

RICHMOND McKINNEY, M.D.

Laryngologist to East End Dispensary, and to Presbyterian Hospital.

MEMPHIS, TENN.

CYST OF INFERIOR BONY TURBINAL.

Alice S., of Grenada, Miss., colored, aged approximately between 30 and 35 years, a stout, apparently healthy woman, consulted me on Nov. 16, 1901, with the following history: She had had a fulness in the right nostril for some time, the exact date of its beginning being indefinite, but perhaps could be traced back several months. The condition occasioned no pain, only inconvenience. The growth in her nose had been incised on two different occasions, but according to her statement nothing other than a little blood followed each of these incisions. Examination revealed an enlargement of the anterior end of the inferior turbinated body. This growth was sessile and practically completely occluded the naris. On pressure with a probe, the swelling proved to be edematous. Under cocain anesthesia the tumor was incised, and a thin, sero-purulent discharge, about a teaspoonful in quantity, followed the incision. The probe revealed that the bone underlying this cyst was uncovered and excavated, the interior of this cavity being roughened, showing that degeneration was going on. The cavity of the cyst was freely curetted, leaving a smooth bony surface. After curetting, a cautery point was passed freely around the inside of the cyst. Recovery was uninterrupted, and, although instructed to report a return of the growth, I have since heard nothing from the patient.

The literature of cysts of the nose is strangely lacking, yet this may be owing to the fact that they are considered conditions of some rarity. Still, I believe that simple retention cysts, not involving the bony framework of the nose, are much more frequent than is generally supposed; but cysts of the bony structure are no doubt very occasional in occurrence.

The origin of bony cysts of the nose is one of the many moot points in medicine, and I can add no theory to the many already advanced in accounting for the absorptive or necrosing process which produces these cavities in the nasal bones. Whether it be due to a "rarefying ostitis," a "necrosing ethmoiditis," as described by Woakes, or to one of the numerous other processes as suggested by various investigators, must remain as yet unsettled.

In my case a question might be raised as to whether the process began within the bone and by an outward extending necrosis destroyed the periosteum overlying the spot of beginning degeneration and distended the mucous membrane at the site of degeneration, or whether it began as a retention cyst of the mucous membrane and by an erosive process produced bony exfoliation at the base of the cyst. I am inclined to believe that the former was the course taken by the disease.

The majority of the cases of nasal cyst that have so far been reported have been located on the anterior end of the middle or inferior turbinated body, and most of the reported cases have occurred in females.

CYSTIC FIBROMA IN A BOY 12 YEARS OF AGE.

Ulysses C., of Eudora, Miss., aged 12 years, was referred to me by Dr. A. L. Emerson, Eudora. The boy had the following history: His nose has been stopped up on the right side for an indefinite period, and he suffers from profuse and frequent nose-bleed from this side. He has occasional attacks of tonsillitis, and his head and ears hurt a good deal. Examination disclosed a reddish, polypoid tumor, about the size of a hazelnut, pedunculated and apparently springing from about the junction of the cribriform plate of the ethmoid with the anterior cartilaginous septum. The tumor was seized with a slender dressing forceps and twisted loose from its attachment. During the process of removal, the growth burst and discharged a dark, grumous, foul-smelling material, and hemorrhage was very free. After removal of the tumor, its site of implantation, which proved to be the cribriform plate, was cauterized with the electrocautery. Investigation of the histologic structure of the growth showed it to be a fibroma.

Nasal polyps of any kind are rarely seen at such an early age, Moure having found that in 10,520 cases of nasal polypi only five occurred in children; also the character and site or origin of this growth were such as to excite my interest. There was no question of the fibromatous structure of the tumor, although there was, as almost invariably is the case, some myxomatous tissue to be found in the sections examined, but hardly enough to warrant calling the growth a myxofibroma. It is claimed by some observers that nasal polyps are always edematous fibromata, and Jonathan Wright states that true myxomata are never found within the nasal chambers. Certainly the mucous polyps that I have from time to time removed in other patients have presented no such fibromatous structure formation as the case that I have just reported. Fibromata are, as in my case, usually found singly, which is hardly ever the case with myxomata. Another feature of interest in this case was the site of implantation of the pedicle, which was found to be the cribriform plate of the ethmoid, a most unusual source of origin of these growths, which commonly spring from the naso-pharynx or posterior end of the middle turbinate. This fact led me to seek for some traces of necrosing ethmoiditis which might account for the etiology of the tumor, but I could find no further indication of bony degeneration.

Still another uncommon feature of this growth was that it was pedunculated, as they are in most instances observed to be sessile, with a broad base.

Lyceum Building.

Unbreakable Glass.—The *Journal d'Hygiène* of February 25 publishes a description of the unbreakable glass made by compressing ordinary devitrified glass, and its advantages for clinics, hospitals, etc. It makes the best material for floors, wall coverings, ceilings, etc., as it is not affected by the copious use of water and disinfectants nor by the most powerful acids, nor by freezing. It is used extensively at Reverdin's polyclinic at Geneva and in establishments where acids are employed in manufacturing. Recent tests at the French Laboratory of Bridges and Highways proved that a force of 2023 kilograms to the square centimeter was required to crush it, while granite can be crushed with 650 kilograms. Tests with a rapidly revolving grindstone showed that it resisted wear better than Saint Raphael porphyry and other extremely durable stones. It also surpassed other materials used in floors and pavements in its resistance to weights falling on it.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

61 Market Street : : Chicago, Ill.

Cable Address: "Medic, Chicago"

Subscription price: Five dollars per annum in advance

SATURDAY, MARCH 22, 1902.

FERMENTS IN PATHOLOGY.

While the chemical constitution and physical properties of ferments as yet remain obscure, their importance in various biological processes is being disclosed with increasing emphasis by continued investigation. There is no sharp line of division between the nature of physiological and pathological processes and fermentations; recent investigations show that ferments may exercise just as important activities in pathology as in physiology. From the standpoint of physiology we may divide ferments into two great groups, as suggested by Jacoby in a recent review of the significance of ferments in pathology:[1] 1, the ferments in the secretions, which prepare the food for absorption, and 2, the intracellular ferments, which preside over the oxidizing and other cellular functions. Referring to digestive ferments, Jacoby cites the observations of Pawlow, showing the close dependence of the secretion of the gastric juice upon so-called reflex nervous influences, as corroborative of the old clinical experience that digestive and nervous disturbances are closely associated. Pawlow showed that stimulation of the appetite and other means may cause secretion of gastric juice without the presence of even a trace of food in the stomach. The inference that grave digestive disturbances may exist without any anatomical changes in the walls of the stomach lies near at hand; and the therapeutist immediately thinks of measures that may remove nervous disorders, the exact nature of which are not now clearly understood. If he chooses, the physician may cite the foregoing as an example of the anticipation by clinical observation of discoveries by more exact and more satisfactory scientific methods.

The self-digestion of tissues, or autolysis, shown by Salkowsky to depend on an intracellular ferment which is widely spread in the organism and to which more extended reference was made in these columns recently,[2] is claimed by Jacoby to be markedly increased in the liver of dogs in phosphorus poisoning and he suggests that the rapid and excessive destruction of hepatic parenchyma in acute yellow atrophy of the liver may depend upon a similar increase of a fermentative process that normally is held in rigid check. Among other and probably less obscure instances of tissue self-digestion may be mentioned the softening which occurs in purely chemical suppuration, such, for instance, as Leber studied after inserting metallic copper in the anterior chamber of the eye of rabbits; the liquefaction of sterile, necrotic tissue, and of the huge solid exudations that form in the lungs in typical croupous or lobar pneumonia. Müller and Simon have shown that in the latter instance it concerns a genuine autolysis. When we recall that a lung may be freed in a few days from a mass of exudate, weighing several hundred grams, and this largely by absorption rather than by expectoration, we obtain some idea of the power in this case for good of the autolytic ferment or ferments. Whether the self-digestion or pneumonic resolution is due to increased activity of the ferments normally present or to immigration of ferments from other sources has not been determined. Leucocytes are generally thought to contain digestive ferments and they may play an important rôle in the lung in resolution.

The discovery in animal tissues by v. Fürth and Schneider of tyrosinase, an oxidizing ferment that produces pigments somewhat similar to the melanin of melanotic tumors,[3] has awakened the hope that possibly in this direction may be found the much-needed explanation of the production of melanin pigment in these tumors, often in such quantities as to lead to melanemia and melanuria. Should this hope be realized, it would become an exceedingly interesting and important problem to determine the exact relationship between the ferment and the multiplication of the tumor cells, but speculations of this kind, tempting as it is to indulge in them, are not yet warranted.

The reversibility of ferments—demonstrated by Hill in the case of maltase; by Kastle and Loevenhart for lipase, the fat-splitting ferment; and quickly suggested as probably true for other ferments also—has been applied by H. G. Wells[4] in an interesting manner to the explanation of various pathologic processes, more particularly those in which disturbances of the normal metabolism of fat are at work. These necessarily fragmentary references to the rapidly accumulating knowledge concerning ferment actions may serve to indicate the new light in which various pathologic processes appear when studied from the side of the forces at work in them. No doubt this branch of experimental pathology in the future will add also to our means of combat and control of diseases.

POISONING IN HISTORY.

Every now and then there is a revival of stories of the famous poisoners of history. We are told of wonderful drugs that accomplished their fell purposes with timeliness and dispatch, yet without leaving any undesirable trace behind them by which the possessors of the secret might be rendered amenable to the law. An article on "Champion Poisoners" in the current number

1. Centralbl. f. Path., Jan. 2, 1902, xiii, 2-8.
2. THE JOURNAL A. M. A., Dec. 7, 1901, 1536.
3. THE JOURNAL A. M. A., Dec. 14, 1901, 1612.
4. THE JOURNAL A. M. A., Jan. 25, 1902, 220.

of a popular magazine[1] is a fair sample of these quasi-historical collections of marvelous facts. There is the story of the wonderful poison rings found at Pompeii, whose touch to food or drink, it is fabled, was sufficient to cause death. The artistic poisoning methods are dwelt on most. There is the preparation of arsenic—tasteless, colorless, odorless—that might be smeared on one side of a knife with which a peach was cut, the poisoned half being given to the victim while the murderer could eat the other half with impunity. Then we are told the story of the drinking cup that turned wine into venom, and last of all the looking glass with the magical but at times accommodating power of killing anyone who looked into it. This last is too much for the veracious essayist, who says that modern science has denied the possibility of any such murderous influence, though of course modern science is very skeptical and has spoiled many a good story.

It may be said, however, that most of the stories of wonderful secret poisons are quite as incredible as that of the magical mirror: Poisons whose action could be timed to a nicety; poisons whose evil influence would be exerted not immediately, but after months or even years; poisons that left no trace; all these are popular traditions but with no substantiation in veridieal history. Long ago Cicero said: *omne ignotum pro magnifico*, "what is unknown is always held to be great"; the maxim is especially true of the legends of poisoners and their occult powers, as they are found in traditional folklore. Fear embroidered all manner of details on the actual facts in cases of unexplained death. It was to the interest of those who pretended to deal in poisons, especially for criminal purposes, to magnify the wonder-working qualities of their remedies. Their credulous customers could make no public reclaimer if the drugs failed to accomplish their purpose. Like the vendors of the wonderful drugs that in our day are sold so commonly to produce abortion or enlarge the bust, the presumed poisoners of former generations had little to fear from legal prosecution if their recipes proved unavailing. Accidental coincidence probably at times intervened to confirm the poisoners' hopes as it does in our own day to give a reputation for efficiency to patent medicines. It is not improbable that the supposed poisons of medieval times were, as a rule, as harmless in their effects as the vaunted abortifacients that cure all female irregularities, or, for that matter, any of the other patent medicines of our twentieth century.

The detailed knowledge of toxicology required in many of the stories of wonderful poisons was not possessed and could not be obtained in former times. The ancients knew hemlock, opium, arsenic, aconite and mandrake, but scarcely more. All of these poisons are rather easily recognized in their effects and none of them are easily taken in any considerable quantity without their taste or odor being suspected. It requires long and careful animal experimentation with exact preparations and not with crude drugs to determine the slow effects of poisoning. This is the sort of knowledge they could not have had in former times. It is improbable that any great secrets were lost. Modern pharmacal research has tried all the usual substances that the ancients knew or even mentioned casually and we are thoroughly aware of their properties. There are among them no drugs that would kill in the minute quantities often supposed to be administered in the old stories. There are no tasteless powders that could be shaken on victuals like a pinch of salt, and yet surely cause death. Such stories are like the fairy tales, for advertising purposes, of the remedy that put in coffee cures the tobacco or the drink habit, without the victim's knowledge.

There are many things besides poisoning which explain the sudden and unaccountable deaths of great people in history. Our modern appendicitis furnishes from one point of view a typical case of poisoning. The victim, usually strong and healthy, is taken a few hours after a meal with a severe pain in the abdomen, and dies in twenty-four to forty-eight hours. In women there is the added possibility of fatal extra-uterine pregnancy and there are many other pathologic conditions that could well masquerade as poisoning cases. The death of Germanicus, hinted at by Tacitus as due to poison at the hands of Tiberius, who was jealous of his success in arms, seems really to have been due to an acute exacerbation of an old tubercular process relighted up by the disappointment of losing his command. There seems good reason to think that some time when history is rewritten from the standpoint of the trained pathologist we shall hear much less of poisoning cases in history that we do at present.

1. Cosmopolitan Magazine, February, 1902.

FORMALIN IN TUBERCULOSIS.

In the report of the meetings of the British Congress on Tuberculosis,[1] held in London in July, 1901, Maguire of London detailed the results of over 100 cases treated by him by means of intravenous injections of formalin as well as of numerous cases treated by other observers. Cases treated in the early stage all showed disappearance of physical signs and of bacilli. In cases with cavities the signs of active disease disappeared and the bacilli also. In a recent note,[2] Maguire states that the treatment by intravenous injections of formalin is on trial, and as yet its results do not warrant any authoritative opinion, still less any positive statements as to its being a "cure for consumption."

Fischer and Tieken[3] have made some observations which appear to have direct bearing upon the use of formalin in the treatment of human tuberculosis. Their experiments had to do with 24 guinea-pigs which had been inoculated with tubercle bacilli by the intraperi-

1. British Medical Journal, Aug. 3, 1901, 319.
2. British Medical Journal, Feb. 15, 1902, 428.
3. Transactions of the Chicago Pathological Society, Feb. 10, 1902, 61.

toneal injection of a suspension of a culture from sputum. The animals were divided into four groups of six each, being grouped together according to weight. The heaviest one of each group was reserved as a control. The other animals received intraperitoneal injections of dilute solutions of formalin (8 c.c. of 1 to 1000) at intervals of one or two days. The control animals, which received no injections of formalin, lived longer and fared better than those which were treated. At the postmortem examination, the animals which had received injections of tubercle bacilli followed by those of formalin solutions, always presented the same picture. The changes were most severe in the lungs and liver, which organs were often nothing but masses of friable caseated material. There was extensive involvement of the entire system of lymphatic glands. Histologically there were the usual appearances of tuberculosis together with such degenerative effects as had been previously shown by Fischer to accompany the injection o formalin. In the animals which had received injections of formalin the tuberculous foci were diffuse, seemed to break down more rapidly and were not accompanied by as marked an inflammatory reaction as was the case in the tuberculous animals not injected with formalin. The experiments show conclusively that in guinea-pigs the intraperitoneal injection of dilute formalin has an unfavorable action upon the tubercular process. The authors conclude that the development of miliary tubercles in spots that were actually bathed in dilute formalin lead them to believe that it takes a much stronger solution of formalin to bring about the destruction of tubercle bacilli than is commensurate with life.

In view of these facts it does not seem at all probable that small amounts of formalin injected into tuberculous patients can have any deleterious influence upon the tubercle bacilli. It would seem that tuberculous patients had been subjected to the action of enough antiseptics, poisons, etc., with apparent improvement for a time, to have shown that other factors than the remedy are very largely responsible for the results. Before resorting to the injection of active chemical agents into the tissues and blood of this unfortunate class of patients, it would be advisable to first demonstrate in experimental animals that very definite benefit could reasonably be expected to follow.

TETANUS AFTER VACCINATION.

The recent accidents of tetanus after vaccination in Camden, N. J., amounting as they did almost to a limited epidemic, have left some questions rather unsatisfactorily answered. We can be reasonably certain that the vaccine lymph itself was free from germs and therefore innocent to that extent and also that there must have been an unusually general dissemination of the tetanus infection. But just why so many subjects of vaccination should thus suffer, when other traumatisms were only rarely affected, is a question that disturbs the laity and helps the antivaccination cause. It is not a pleasant suggestion that the organism, or whatever it is, of vaccine is a specially favorable adjuvant to the toxic action of Nicolaier's bacillus, but nevertheless that is one of the possible inferences to be drawn from these recent occurrences. A rather interesting and suggestive paper on post-vaccination tetanus is contributed by Drs. W. and J. W. Findlay[1] in which they report a case in a woman and review the available literature. The authors conclude that in this case the source of infection was in the patient's skin, that its presence there —the vaccination having been made on the leg—was favored by the long skirts worn, which can hardly fail to favor infection when sweeping along our city pavements with the dusty covering of powdered soil, horse dung, etc. This seems probable enough, but they go on to say that the peculiar method of production and treatment of the vaccination wound would also favor the development of the infection. A surgical operation could probably have been performed with impunity on the same leg without any additional antiseptic precautions, "for the clean incision of the surgeon's knife militates against the very conditions which the vaccinator's lancet offers." Then, the sealing up of the wound furnishes the conditions required for an anaërobic germ to do its dirty work, and they also suggest that the vaccine itself may supply the accessory conditions required by the tetanus bacillus for the development of its toxin and the infection of the system.

It is a noteworthy fact that out of ten cases found in the literature by the authors, six and possibly seven were from the United States, and two others from Cuba, only one having been reported from Great Britain. This does not include the late Camden epidemic or other cases recently reported in this country; in regard to the Camden epidemic, which is mentioned in an addendum, the Drs. Findlay do not accept the conclusions of the local board of health as to the atmospheric infection. They ask: "Is it sound reasoning to conclude that because one of the many injured and wounded persons developed tetanus during the same period that several cases of tetanus were occurring after vaccination, that the tetanus germs must have been in the air? Of course, the tetanus germs were in the air—they are always there more or less—but is not the logical conclusion to be derived from these facts what we have already stated—viz., that the vaccination wound offers special facilities for growth to the tetanus bacillus? If atmospheric and telluric conditions alone were to blame, vaccination would not have claimed cases while injuries claimed but one case." In their own case the wound was throughout protected from the air, the scab was not even removed until after the tetanus had developed.

The legitimate deduction from all this is that we should not confine our attention too exclusively to any one cause. Air infection, skin infection, and every

1. London Lancet, Feb. 22, 1902, p. 506.

other possible source of germs or toxins should be considered and vaccination be conducted under as careful asepsis as a capital operation. The occurrence of such an epidemic, so to speak, as that at Camden shows what the possibilities of the concentration of tetanus germs may be, though the rarity of such is consoling. Millions have been vaccinated every year and yet the cases of tetanus following, so far as known in medical literature, could almost be counted on the ten fingers up to the past year. The danger is infinitesimal; but the fact that it exists should insure all reasonable precautions against it. It may be also true, as suggested above, that we err sometimes in a too rigid sealing up of vaccination lesions and thus favor elaboration of the toxins of possibly existing anaërobic germs.

DR. CHRISTIAN FENGER.

The death of Dr. Christian Fenger, which was noticed in our last week's issue, is a distinct loss to the profession and to medical science. There are few if any medical men who have come to this country from abroad who have earned a higher place in the estimation of their native-born colleagues. This was due not only to his rare scientific ability, but also to his personal qualities of unswerving honesty and truthfulness in all matters and his thoroughly ethical traits, professionally and otherwise. His personality was an attractive one; though brusque sometimes in manner he was always a gentleman, and his good qualities grew upon one on acquaintance. No man had warmer friends or fewer enemies. Of his scientific work it is hardly necessary to speak here; what he has done for scientific medicine in Chicago was reviewed editorially in the pages of THE JOURNAL in connection with the testimonial presented him by the profession a little over a year ago. We can only repeat what was then said, that "for years he has been the recognized type of the scientific surgeon and teacher." Modest and never assertive, all he said carried authority, the more so since all recognized that he himself would be the first to detect and acknowledge an error. His work lives after him and his record is a lasting and enviable one.

ENGLISH VIEW OF DEATH FROM BOXING.

The verdict of an English coroner's jury of "death by misadventure," in the case of a man killed in a fist fight, is commended by the London *Lancet*. It says: "It is for the pistol, the knife, and the attack by an organized gang as modes of settling quarrels between men or boys that the criminal law should be set in motion." This is giving a decidedly local color to a medicolegal opinion, and the dictum is about as justifiable as those in favor of dueling or lynch law. The fist may be very easily a fatal weapon, and those who are ready to use it on little provocation should not feel absolved from the full responsibility for whatever result may occur. The fist is supposed to be the natural British weapon for righting personal wrongs and has, therefore, a prejudice in its favor, which is, we think, indicated in the words of the editorial quoted. It is also the weapon of the common bully and the most unchivalrous one of all, for it exaggerates the efficiency of mere brute strength. The only thing that can be said in its favor is that it is less surely deadly than most other weapons, but it can be deadly enough as has been time and again demonstrated. A duel with British fists, it is safe to say, is far more risky than the average French duel with swords, as regards injury and probably but little less so as regards life. The coroner's verdict may have been influenced by the special facts in the case, that the victim was the aggressor, etc., but the general condonation of murder by fisticuffs, in our esteemed contemporary, seems to us altogether without excuse.

THE ABSENCE OF THE FRONTAL SINUS.

The article in this issue by Dr. Philip on the use of "The X-ray in Determining the Limits of the Frontal Sinus" is a contribution to a subject that apparently needs more elucidation. The possibility of there being no frontal sinus at all in the adult seems not to have been always duly emphasized, as witness two recent articles in a leading medical journal that discuss operations in this region. In one of the two its occasional absence on one side is merely mentioned, in the other this possibility seems to have been entirely neglected. In 240 European crania Logan Turner[1] found one or both sinuses absent in 41, or 17 per cent., and both were absent in 18 of these, or 7.5 per cent., of the whole number. The great majority of these instances were in British skulls, but a still larger proportion of these anomalies is indicated in certain other races, notably the Australians, in 30 per cent. of whom both sinuses were wanting. The clinical importance of the condition and the desirability of any means whereby a more accurate knowledge of their existence can be obtained, are obvious. It is not always possible to accurately diagnose the affections of the region, or perhaps one would better say that mistakes in diagnosis are possible. Such a mistake would be all the more unfortunate if it led to an operation for opening a cavity that did not exist with the risk of wounding the dura or injuring the brain. Yet this appears to be possible in an appreciable percentage of cases.

PROPOSED INSPECTION OF SURGICAL OPERATIONS BY THE LAITY.

A New York legislator has introduced a bill requiring that in any operation on a woman in any hospital, medical college or elsewhere there must be in attendance three of her nearest relatives, who must remain with her until she is returned to bed. There must be absolutely no exposure other than is necessary for the operation, and the attendance of the relatives, it may be presumed, is to enable them to make any protests or criticisms they may feel called upon to utter if any detail of the operation shocks their sensibilities; it would be interesting to see how such a law would work. There are a number of embarrassing contingencies probable as regards its execution; the attendance of relatives will in many cases be difficult to secure, and the question arises whether the operation will have to be suspend·d

1. The Accessory Sinuses of the Nose, New York, 1902, p. 77.

in case one of them should lose his or her nerve and have to retire; the interference of a hysterical relative is another possibility to be considered. On the whole, it looks as if the enforcement of such a law would work badly for the patient and lead to serious suffering and even sacrifice of life. In fact, the law would of necessity have to be disregarded as soon as passed and would be one of the useless and ridiculous encumbrances on the statute books, but with the possibility of its being utilized for blackmail and annoyance. Its introduction is probably a bit of political shyster practice, but, in any event, the record of the New York legislature in regard to medical humbugs is fortunately such that it is hardly likely to become a law.

THE HOSPITAL QUESTION.

In this issue we publish a contribution discussing one of the leading questions of the day, but one that has not duly occupied the attention of the medical profession, viz., the relation of hospitals and hospital workers and administrators to the general practitioner. The hospital movement, as we may call it, is a fact to be met and the question is: Are we influencing its adjustment to the best interests of all as we should or are we allowing it to follow its own haphazard way? The subjects of inquiry suggested by Dr. Niles are pertinent ones and of special interest as regards the future of our profession. The so-called hospitals of the present, as of the past, include not only the public but the private institutions and the relation of each of these to general medical practice is a special problem of itself. The abuse of public charities in the one and the too frequent exclusive use for private emolument of the other are matters that will naturally suggest themselves and the ethics of hospital practice generally. Hospital positions are often sought by physicians and surgeons not exactly for their health, as the saying is, but as an indirect and sometimes a direct commercial advantage. The ever-pervasive commercial spirit of the day prevails to a greater or less extent in these institutions under the mantle of charity and science. The medical profession outside of hospital staffs is too often a sufferer from this cause. This is only one feature of the case to be considered, but to amplify upon all the points suggested by Dr. Niles would require more space than can be given. The ideal hospitals of the future will give all the advantages without the drawbacks of the present system; they will be open to the profession generally, while affording special scope for those whose acquirements make their services in demand for particular lines of work. Their multiplication under such conditions will be a distinct advantage to the public and the profession.

THE NEW SWEDISH PHARMACOPEIA.—After seven years of toil, the committee in charge of the revision of the pharmacopeia in Sweden completed its task and the new edition was ready January 1, 1902. It is entirely in Swedish except that the Latin names of the drugs are appended. It contains a department devoted to veterinarian drugs, and tables of maximum doses not only for man but for various domestic animals.

Medical News.

CONNECTICUT.

Change in Medical Course.—Yale Medical School has announced that the first year's studies can hereafter be arranged to be taken in the academic department, the second, third and fourth years being spent in the medical school proper.

To Restrict Consumption.—The Bridgeport Medical Association has voted to appoint a committee of five to confer with Health Officer Hill for the purpose of drafting an ordinance to be presented to the common council to restrict the spreading of consumption.

Dr. Lindsley's Semi-Centenary.—A complimentary banquet was tendered, February 20, to Dr. Charles A. Lindsley, New Haven, secretary of the State Board of Health, and emeritus professor of principles and practice of medicine in Yale Medical School, on the occasion of the fiftieth anniversary of his entrance to practice in New Haven. Dr. William H. Carmall acted as toastmaster.

Indebtedness Wiped Out.—Early in February the officials of the Hartford hospital appealed for funds to pay the debts of the institution, amounting to $74,800. Before the end of the month the entire amount had been subscribed, with $90 to spare, and in addition $5000 has been added to the permanent fund. J. P. Morgan contributed $25,000, subject to the raising of the remainder within a stated time.

Mortality Reports.—By reports received, there were 1124 deaths during the month of February. This was 48 less than in January, and 257 less than in February of last year, and 76 less than the average number of deaths in February for the five years preceding. The death rate was 14.9 for the large towns, for the small towns 14.6, and for the whole state 14.8. The deaths reported from infectious diseases were 194, being 17.2 per cent. of the total mortality.

DISTRICT OF COLUMBIA.

Health of the District.—The report of the health officer for the week ended March 8, shows the total number of deaths to have been 106, of which number 96 were white and 37 colored; 132 births were reported, of which 76 were white and 56 colored, 65 male and 67 female. At the close of the week there were 11 cases of smallpox, 16 of diphtheria, 35 of scarlet fever, and 33 cases of typhoid fever under treatment. Typhoid fever is now being reported to the health department in accordance with the recent law approved February 4. With the view of lessening the transmission of tuberculosis in the District, the health officer has issued a very excellent monograph on the subject, which is being distributed free to the physicians and public. It goes thoroughly into the cause and nature of the disease, methods of transmission, disinfection and hygiene of the malady.

Medical Practice Act Sustained.—The Attorney for the District has sent the following reply to a physician of Virginia who desired to practice medicine in the District of Columbia without taking the necessary examination: He says the Secretary of the Board of Medical Supervisors has correctly followed the law in declining the requests. "It appears that the State of Virginia does not issue licenses to practice medicine to licentiates of the District of Columbia upon the conditions specified in the act of Congress. It therefore follows that licentiates of the State of Virginia are not entitled to practice medicine in the District until the license is issued by the Board of Medical Supervisors. It is requested in this case that a temporary license shall be issued pending the examination of the Board. I am of the opinion that the law does not authorize this, and that, therefore, the Board is without authority to issue a temporary license."

Local Sanitary Laws.—The local laws of the district governing contagious and infectious diseases and vaccination are quite efficient and satisfactory and fortunately give sufficient authority to the Commissioner and health officer to enforce the same. The present management of contagious diseases in the District has been brought to a high standard of efficiency and effectiveness by the present health officer, Dr. W. C. Woodward. The following sections of the laws are of interest:

Authority of Commissioners: Sec. 5. That whenever it comes to the knowledge of said health officer, either by the certificate hereinbefore provided for or otherwise, that any person in said District is suffering from any contagious disease said health officer shall cause one or more suitable placards or warning signs to be placed at once in a conspicuous position or positions upon, at or near the front entrance or entrances to the premises in which such person is, so that the same can be distinctly seen by passers

by; said placards or signs shall contain, printed thereon in large letters, the name of the disease from which said person is suffering, and in small letters a statement of the law in reference to entrance to and exit from such house, and in reference to interfering with such placard or warning sign; if such premises be a hospital, asylum, hotel or apartment house said placard or warning signs may, in the discretion of said health officer, be placed in a conspicuous position within said premises, at such place or places as said health officer may determine, said placards or warning signs shall be displayed as aforesaid until such premises and the contents thereof are disinfected to the satisfaction of the said health officer, as certified by him, and for such time thereafter as may be necessary to demonstrate the freedom of occupants of said premises from contagious disease, namely in the case of cholera and yellow fever, 5 days; typhus fever, 21 days; smallpox, 16 days; the plague, 14 days; the glanders, 21 days: Provided, that in addition or in lieu of the placards or warning signs provided for above, said health officer may station a watchman or watchmen at such building or premises for the purpose of securing compliance with the provisions of this act.

Provision for Quarantine: Sec. 10. That no person in said District suffering from any contagious disease, or residing either permanently or temporarily in any building where there is such disease (or, if such building be a hospital, asylum, hotel or apartment house in the apartments where there is such a disease) shall leave such building or apartment, except with a written permit from said health officer, and then only in accordance with the terms of said permit; or with a certificate from said health officer certifying that such person can leave said building or apartments without danger to public health.

Sec. 21. That whenever any person in said District is an inmate of any premises occupied by three or more families, or of any tenement house, boarding house, lodging house, hotel or apartment house, and is suffering from any contagious disease, and can not in the opinion of said health officer, be properly isolated in such premises, tenement house, lodging house, hotel or apartment house, said person shall be removed as expeditiously as possible under direction of said health officer, to the public hospital or to such other place, satisfactory to said health officer, provided by and at the expense of said person, his parents or guardians; if such person can not, in the opinion of said health officer, be removed as aforesaid without endangering his life, said health officer may cause such persons in the vicinity to be removed as are in danger of contracting the disease. Any person suffering from any contagious disease, and requiring to be treated at public expense, may, at the discretion of said health officer, be removed to the public hospital for treatment.

For Vaccination: Sec. 23. That every person in said District having been exposed to the infection of smallpox (including varioloid) shall be at once successfully vaccinated, or vaccinated a sufficient number of times to make it evident that successful vaccination is impossible.

Sec. 24. That it shall be the duty of every person in said District to be successfully vaccinated a sufficient number of times to make it evident that successful vaccination is impossible, whenever the Commissioners of said District shall, by proclamation, declare such action on the part of every person, within a reasonable time, to be stated in said proclamation, necessary for public health. Provided, That this section shall not apply to persons who prove to the satisfaction of said health officer that they have been successfully vaccinated, or repeatedly vaccinated, as aforesaid, within five years from the date of said proclamation, or that they have had smallpox or varioloid.

Sec. 25. That the Commissioners of said District be, and they are hereby, authorized and empowered whenever said District is, in their judgment, threatened or afflicted with any contagious disease to cause house-to-house inspections to be made, to require, especially, the cleansing and disinfection of premises, or parts of premises, to provide accommodations for such persons as may be threatened by or afflicted with any of the diseases aforesaid, to provide gratuitous vaccination and distribution of disinfectants and to do or cause to be done such other acts not contrary to law as may be necessary in their judgment, to prevent the introduction or spread in said District of any disease aforesaid.

GEORGIA.

Dr. Long's Memory Honored.—Georgia has chosen Dr. Crawford W. Long, one of the reputed discoverers of anesthesia, as one of the two subjects for statutes in Statuary Hall in the Capitol at Washington.

Commencement of Medical College of Georgia.—Lectures at this institution closed March 12, and on the following day the final examinations commenced. The commencement exercises will be held at the Opera House, Augusta, April 1. Chancellor Walter B. Hill of the State University will present the diplomas, and Dr. Theodore E. Oertel will deliver the address to the graduating class.

Change in Editor.—Dr. William E. Fitch, founder, and for many years editor and business manager of the *Georgia Journal of Medicine and Surgery*, Savannah, has sold his interest in the publication to his former associate and co-editor, Dr. St. Joseph B. Graham, who becomes editor and sole proprietor. Dr. Fitch will devote his entire attention to the practice of his profession in Savannah.

Personal.—Dr. Robert C. Eve, Augusta, assistant surgeon in the army, has left for his post of duty in the Philippines.——Dr. H. C. Wood, Irwinton, has located in Dublin.——Dr. Eugene Foster, Augusta, has been elected president of the local board of health.——Dr. Hunter P. Cooper, Atlanta, has been appointed division surgeon of the Nashville, Chattanooga and St. Louis Railway, with headquarters at Atlanta, vice Dr. William P. Nicolson.

ILLINOIS.

More Patients at Bartonville.—The Board of Asylum Commissioners has completed arrangements to receive 300 more patients at the Illinois Hospital for the Incurable Insane at Bartonville, near Peoria.

Fifty Years of Practice.—Dr. David Ellis, Augusta, who was graduated from the University of Louisville in 1852, has been in active practice in Augusta for half a century. He is now 76 years old and enjoys good health.

St. Anthony's Hospital Staff.—At the annual meeting of the medical and surgical staff of St. Anthony's Hospital, Rock Island, Dr. George L. Eyster was elected president; Dr. Joseph R. Hollowbush, vice-president, and Dr. St. Elmo M. Sala, secretary-treasurer.

Chicago.

Dr. John R. Neely, medical director of the county institutions at Dunning, has gone east for a trip of ten days to inspect state institutions.

Dr. Fenger's Estate.—The will of Dr. Fenger, probated, March 18, provides for the disposition of an estate of $110,000, of which $100,000 is personal property. Mrs. Fenger is made executrix without bonds.

Special Train to the Meeting of the American Medical Association at Saratoga Springs.—The Chicago Medical Society has arranged with the Lake Shore and Michigan Southern Railway for a special train to Saratoga Springs, N. Y., to the annual meeting, June 10 to 13.

Personal.—Dr. Henry F. Lewis has gone abroad for the summer.——Dr. Alfred Helton has secured an interneship at St. Mark's Hospital, Salt Lake City, Utah.——Dr. Albert G. Huizinga, employed as disinfector and fumigator by the Department of Health, has resigned.——Dr. George W. Boice has located in Rushville.

Translated into Spanish.—Dr. N. Senn's book on the Spanish-American war, most of the matter of which appeared in THE JOURNAL, has been translated into Spanish by Dr. Juan Redondo of Madrid, a surgeon of high rank. The illustrations which appeared in the original volume have not been incorporated in the Spanish edition.

New Hospital Opened.—Formal opening exercises at the new St. Mary's of Nazareth Hospital, Leavitt Street, near Division, were held March 16. The hospital is a five-story fireproof building and occupies an entire block. The building will be in charge of the Sisters of the Holy Family of Nazareth, and the medical staff of ten physicians will be in charge of Dr. A. J. Ochsner.

Communicable Diseases of Children.—The contagious diseases of childhood continue to be unusually prevalent; scarlet fever especially is endemic in many parts of the city, and, together with measles and whooping cough, is of a severe type, with a high mortality rate. There were 29 deaths from the four principal communicable diseases of the young reported to the Department of Health, last week, as against only 14 in the corresponding week of last year.

The Week's Mortality.—Although there were forty more deaths from all causes reported last week than during the week previous and 11 more than in the corresponding week of 1901, the rate is still well within the average March figure. During the twenty years, 1882-1901 inclusive, the average rate was 18.40—the month being ninth in the mortality scale, November having the lowest and July the highest average death rate. Last week's rate was 15.86 per 1000 per annum.

In Memory of Dr. Fenger.—The Elgin Physicians' Club held a special meeting, March 8, forwarded a telegram of condolence to Mrs. Fenger and voted to draft a set of resolutions to be presented to Dr. Fenger's family.——The Chicago Medical Society met March 12, but immediately adjourned.——The following resolutions were adopted by the Medical Staff of the Evanston Hospital on the death of Dr. Christian Fenger:

The members of the staff of the Evanston Hospital hereby express and record, the sense of their loss in the death of their colleague, Dr. Christian Fenger, who has passed from faithful service to well-earned rest.

Resolved, That, in the death of Dr. Fenger, the hospital loses one of its ablest counselors and most brilliant surgeons. For his distinguished services in pathology and surgical science he was knighted by an appreciative king, and honored by the profession of two continents.

The works of our eminent associate are his grandest memorial, and their influence the fittest benediction. We do not attempt to measure the ennobling effect of such a life, nor fathom the far-reaching power of such enlightened service as his to mankind, but would simply offer this expression of his worth, that, as a testimonial, it may be entered upon the minutes of the Evanston Hospital Association, and extended to his family as a mark of our sympathy and esteem.

INDIANA.

Kokomo City Hospital.—The Kokomo City Hospital Association was incorporated March 10 with a capital stock of $15,000.

Endowment for Epworth Hospital.—The family of the late Hon. Clem Studebaker have offered an endowment fund to Epworth Hospital, South Bend, provided the institution first be freed from its present indebtedness of $50,000.

Hammond Hospital Staff.—The medical staff of St. Margaret's Hospital, Hammond, has re-elected the following officers: Dr. James T. Clark, president; Dr. Cyrus W. Campbell, vice-president, and Dr. H. Edgar Sharrer, secretary.

Doctors Win Suit.—The suit of Mrs. Julia Varnes, Tipton, against Drs. George H. F. House, Indianapolis, and J. K. Bates, Broad Ripple, for malpractice, was decided in favor of the defendants, by a Hamilton County jury, March 6.

Diverticulum for Appendix.—In the Whitley Circuit Court, March 6, Edward Zumbrum was given damages of $1500 in his suit for $5000 against Drs. James W. Squires, Churubusco, and Nathan B. Moore, Merriam. The plaintiff charged that the defendants operated on him "for appendicitis and, instead of removing the vermiform appendix, they cut off the diverticulum, which is a growth on the intestine similar to the appendix."

Diseases.—The monthly reports to the State Board of Health show that smallpox was the most prevalent disease in February, and pneumonia the second most prevalent. Pneumonia was fifth in January, bronchitis being second that month. The order of disease prevalence in February was: Smallpox, pneumonia, bronchitis, influenza, rheumatism, tonsillitis, pleuritis, measles, scarlet fever, diarrhea, typhoid fever, diphtheria, erysipelas, whooping cough, puerperal fever, cerebrospinal meningitis cholera morbus and cholera infantum.

Deaths.—The February deaths numbered 2874, rate per 1000, 14.8. In the same month last year there were 3350 deaths, rate per 1000, 17.3. This was therefore, in this comparison, a reduction of 476 in the number of deaths and 2.5 in the rate; 14.6 per cent., or 395, of the total deaths were infants under one year of age and 29.3 per cent., or 792, were 65 and over. Pneumonia heads the list with 512 deaths, and other important causes of death come in the following order: Consumption 337, violence 119, diphtheria 26, cerebrospinal meningitis 21, scarlet fever 19, diarrheal diseases 13, whooping cough 12.

KENTUCKY.

Dr. Stone's Estate.—The estate of the late Dr. Barton W. Stone, Louisville, is valued at nearly $35,000.

Accidents.—Dr. William T. Durrett, Louisville, slipped and fell, March 6, breaking his right leg below the knee.——Dr. James M. Young, Bloomfield, fell on the ice and fractured his hip.

Pest-house Dynamited.—Unknown persons evinced their disapproval of the construction of a smallpox isolation hospital near Burgin, by blowing the building to pieces with dynamite, March 9.

Dr. Thomas P. Satterwhite, Louisville, has been elected President of the Board of Commissioners of the Central Lunatic Asylum at Lakeland for the eighth successive time. Dr. Satterwhite was one of the advocates of the Carroll law recently defeated in the legislature, which provided for the placing of the asylums under a central board of control.

Milk Adulteration Laws.—Dr. Allen, Louisville, will endeavor to enforce the laws regarding the adulteration of milk, beginning with March 15. His department is now equipped with complete chemical and bacteriological outfits, with competent men in charge of these departments, and the profession expect much good to result from his efforts. Adulterated milk is defined as that containing more than 88 per cent. of water or fluids; containing less than 12 per cent. of milk solids; less than 3 per cent. of fat or having a specific gravity of less than 1020; milk drawn from animals within ten days before or ten days after parturition; milk drawn from animals fed on distillery waste; from cows kept in a crowded condition; milk from which any part of the cream has been drawn. Cream sold as such shall contain 20 per cent. of butter fat.

MARYLAND.

Baltimore.

Half a Century.—Dr. Robert H. Goldsmith, Baltimore, celebrated the fiftieth anniversary of his graduation from the University of Maryland School of Medicine, March 9.

Fraternity Banquet.—The fourth annual banquet of Alpha Chapter, Phi Chi Southern Medical Fraternity, was held, March 11, at the Eutaw House, Dr. Wm. P. Martin being toastmaster.

Forfeits Bail.—Dr. William B. Hawkins, indicted on the charge of committing manslaughter by performing a criminal operation, failed to appear in the Criminal Court, March 15, and his bail of $2500 was forfeited.

Baltimore Deaths.—For the week ended March 15 there were only 175 deaths, against 214 last year, being a general death rate of 14.44—for the whites only 13.90 per 1000. Among the causes were consumption 23, pneumonia 16, smallpox 2, scarlet fever 1.

Post-Graduate Course.—The College of Physicians and Surgeons, Baltimore, announces a series of post-graduate courses to be held from April 28 to June 9, designed for practitioners of medicine who desire to spend a short time in advanced clinical and laboratory study, and keep in touch with the progress of the day. The course provides for classes in medicine, surgery, and medical and surgical specialties, and laboratory courses in clinical medicine, pathology, bacteriology and pharmacology.

Personal.—The Board of Charities and Correction have appointed Dr. W. H. Smith resident physician at Bayview Asylum, and Dr. Irving J. Spear resident physician for the insane department, vice Drs. N. G. Kierle, Jr., and Lindsay Peters, who have completed their year of service.——Dr. George L. Staley, aged 79, was knocked down on the street by a wagon, March 15, and badly bruised.——Surgeon P. E. McDonald, U. S. N., has been detached from the U. S. Naval Academy and ordered to report for duty on the cruiser *Olympia*.——Dr. Harry C. Jones, of the Department of Chemistry, Johns Hopkins University, has just published "The Elements of Physical Chemistry," the first comprehensive text-book of physical chemistry in the English language.——The Health Commissioner has appointed seven additional vaccine physicians to assist temporarily in the work. They are Drs. J. N. Fenton, Page Edmonds, Albert J. Underhill, James L. Hooper, Alexander McKee, James E. Heard, and I. R. Page.

MICHIGAN.

Hospital Burned.—The hospital of the Great Northern Protective Association, Cheboygan, has been destroyed by fire, the loss amounting to about $3000.

Medical Inspection of Schools.—The Health Officer of Detroit has commenced the daily medical inspection of schools, with a staff of thirty physicians.

Borgess Hospital, Kalamazoo.—The enlarged Borgess Hospital at Kalamazoo will be opened by the Sisters of St. Joseph some time this month. The new $50,000 addition is almost completed.

New Medical Society.—It is proposed to form an ophthalmological, otological and laryngological society composed of physicians of Michigan and adjacent parts. The project is endorsed by Drs. Emil Amberg, Eugene Smith, Preston M. Hickey and Ernest L. Shurley. A meeting was held recently at the Hotel Cadillac, Detroit, to consider the organization of such a society.

Prevalence of Disease.—For the month of February, compared with the preceding month, meningitis was more prevalent; and typhoid fever and diphtheria were less prevalent. For the month of February, compared with the average for February in the 10 years, 1892-1901, scarlet fever, measles and smallpox were more than usually prevalent; and consumption, erysipelas, remittent fever, and diphtheria less than usually prevalent.

Mortality in Michigan.—There were 2665 deaths returned to the Department of State for February, a decrease of 160 from the number returned for the preceding month. As February is a shorter month than January, the death rate, on the contrary, showed an increase from 13.5 to 14.0 per 1000 population. There were 422 deaths of infants under 1 year; 150 deaths of children aged 1 to 4 years, and 897 deaths of elderly persons over 65 years. Important causes of deaths were as follows: Pneumonia, 369; tuberculosis of lungs, 173; typhoid fever, 38; diphtheria, 38; scarlet fever, 20; measles, 16; whooping cough, 18; meningitis, 45; influenza, 78; cancer, 114; accidents and violence, 100.

NEW JERSEY.

Atlantic City Hospital Improvements.—On March 5 the children's ward and maternity ward, recently added to the Atlantic City Hospital, were opened for the reception of patients.

State Tuberculosis Sanatorium.—The legislature has before it a bill providing for the creation of a state sanatorium for consumptives. The bill has the sanction of the Medical Society of New Jersey.

The Mosquito Must Go.—The New Jersey assembly, after a long debate, has passed the mosquito exterminating bill by a vote of 48 to 9. The bill appropriates $10,000 to the state experiment station for the purpose of making a scientific investigation of the habits, origin, and breeding places of the mosquito and their relation to malarial and other diseases. The money is to be expended by the state entomologist.

Personal.—Dr. W. S. Patterson has resigned as junior resident physician at the Atlantic City Hospital, and has gone to Philadelphia, where he will be an interne at the Blockley Hospital.——Dr. Herbert L. Cooper, Vineland, has moved to Newfield.——Dr. Girard J. Van Schott, Passaic, has inherited an estate in Holland, valued at $130,000.——Dr. Henry B. Diverty has been made physician to the Woodbury Board of Health.——Dr. Daniel Strock, Camden, has recovered from the immediate effects of septicemia.

NEW YORK.

Memorial Meeting for Dr. Townsend.—The Genesee County Medical Association held an adjourned meeting at Batavia, March 10, which took the form of a memorial to its late president, Dr. Morris W. Townsend, Bergen.

Canandaigua Hospital.—Mrs. F. F. Thompson, whose proposed gift toward the establishment of a hospital in Canandaigua was noticed in THE JOURNAL two weeks ago, has purchased the McKechnie mansion in the heart of the village, with grounds of six acres, for $22,500, as a site for the hospital.

Dr. Moore's Memorial.—The following bodies have adopted resolutions in tribute to the memory of Dr. Edward Mott Moore: The Rochester Academy of Science, the Executive Committee of the University of Rochester, the Rochester Practitioners' Society, the Rochester Athenæum and Mechanics' Institute, the Rochester Public Health Association, the Rochester Pathological Society, Buffalo Academy of Medicine, and the Faculty of the Medical Department of the University of Buffalo.

New York City.

French Hospital Benefits.—By the performance of "Le Cid" at the Metropolitan Opera House, March 4, for the benefit of the building fund of the new French Hospital, $5000 was added to the fund.

New Home for the Ophthalmic Institute.—The New York Ophthalmic and Aural Institute, under the charge of Dr. Herman Knapp, is to move from its old quarters in East Twelfth Street to a new edifice on Central Park West and 64th Street.

Minturn Hospital Annex.—Mrs. Andrew Carnegie has expressed her willingness to give $60,000 to build an annex to the Minturn Hospital, in New York, to be used for smallpox patients. The authorities of the institution will consider the plan. The building was intended for diphtheria and scarlet fever cases only.

Contagious Diseases Hospital for the Bronx.—The senate has passed the bill authorizing the establishment of a hospital in the Borough of the Bronx, which may be used not only for emergency cases but for the reception of smallpox patients. As no opposition to the bill has developed, it is confidently expected that the bill will pass the assembly.

New Home for Incurable Consumptives.—The House of Rest for Consumptives, after various vicissitudes during the past ten years, has at last purchased for $75,325 a fine plot of 27 lots, situated at Inwood-on-the-Hudson, at an elevation of 160 feet above the river. A double mansion now on the place will be quickly altered at a cost of $10,000 to meet the requirements of the institution, which is conveniently accessible by railroad from the heart of the city. The endowment fund now amounts to $450,000.

Hospital Accommodations for Consumptives.—Commissioner of Charities Folks has asked the Board of Estimate and Apportionment for $40,000 to alter and equip the four buildings on Blackwell's Island recently vacated by the Manhattan State Hospital for the Insane. A large part of this sum is to be expended in building glass structures so that the patients can receive an abundance of sun and fresh air. It is estimated that 500 patients can be maintained here at a cost to the city of only $18,000 a year.

Vital Force Discredited.—A recent item called attention to the arrest of a "Doctor" Armstrong, whose peculiar methods of treating by "vital force" had led to his arrest on charges of immorality. The so-called "doctor" turns out to be a "Rev." and an "LL.D.," and from the testimony it seems as though his vital force was easily turned aside by such impedimenta as clothing, for the ladies were treated with nothing on but a night-gown or were completely disrobed. The court very naturally sent this healer to jail for six months.

OHIO.

Fire at Speers Hospital.—A fire broke out at the Speers Hospital, Dayton, March 9, which occasioned considerable alarm, but was extinguished by prompt action of the fire department, with slight loss.

Dr. Loving's Loving Cup.—Professional friends of Dr. Starling Loving, Columbus, recently presented him with a loving cup, as a mark of the esteem in which he was held by them. Dr. Darlington J. Snyder acted as master of ceremonies and Dr. Florus F. Lawrence made the presentation speech.

Nu Sigma Nu Fraternity.—The twelfth annual convention of the Nu Sigma Nu Fraternity was held in Cincinnati, March 14 and 15. About two hundred physicians were in attendance, the guests of Theta chapter. Dr. James Tyson, Philadelphia, was elected honorary president for the ensuing year. The next convention will be held in New York City.

Cincinnati Hospital Interneship.—The competitive examination for internes to the Cincinnati Hospital resulted as follows: Drs. Max Dryfoos, J. E. Stemler, Moses Salzer, L. C. Hayne, A. O. Zwick, Medical College of Ohio; C. W. Manss and D. W. Bedinger, Miami Medical College; J. H. Shroeder, Cincinnati College of Medicine and Surgery. Drs. S. G. Zinke and H. L. Bowles, both of the Ohio College, were appointed alternates.

Personal.—Dr. John C. Reeve, Jr., Dayton, has left for a trip around the world and will be absent several months.——Dr. Walter A. Griess, receiving physician to the Cincinnati Hospital for the past five years, has resigned, the resignation to take effect the first of April. Dr. Griess will spend several years in Europe before entering private practice.——Dr. Herschel A. Russ, Hillsboro, has been appointed major-surgeon in the Ohio National Guard and assigned to the First Infantry.——Dr. Orin L. Kramer, New Salem, has opened an office in Hebron.——Dr. M. H. Koehler, Newark, is about to locate in Jacksontown; Dr. William L. Jackson of that place having moved to Zanesville.

PENNSYLVANIA.

A Divided Victory.—The trial of a Meadville osteopath for practicing medicine without a license resulted disastrously for both sides. After twenty-four hours' deliberation, the jury was equally divided, but finally acquitted the defendant, dividing the costs of the suit between him and the Meadville Board of Health which made the complaint.

Portrait of Founder Presented.—D. T. Watson, Pittsburg, has presented the University of Pennsylvania with a copy of the portrait of John Morgan, by Angelica Kauffman. John Morgan was not only the founder of the Medical Department of the University, but a member of the first class to be graduated in the college and to receive the degree of Bachelor of Arts.

A Correction.—A correspondent notifies us that the News note in the last issue which stated that the Philadelphia County Medical Society had refused to endorse the administration of the Municipal Hospital is incorrect. At the meeting referred to objection was raised to the consideration of two resolutions, and as unanimous consent is required for action on business matters at scientific meetings, no vote was taken on the resolutions.

Surgeons for the Guard.—The following appointments to the medical department of the National Guard were announced, March 7: Dr. Alfred G. Wood, Philadelphia, to be surgeon, with the rank of major, assigned to Third Regiment; Dr. John C. Hirst, Philadelphia, to be assistant surgeon, with rank of first lieutenant, assigned to Third Regiment; Dr. John L. Brubaker, Altoona, to be assistant surgeon, with rank of first lieutenant, assigned to the Sheridan Troop, and Dr. Edwin A. Nicodemus, Bowmansdale, to be assistant surgeon, with rank of first lieutenant, assigned to Governor's Troop.

Philadelphia.

Free Hospital for Poor Consumptives.—At the recent annual meeting of the Free Hospital for Poor Consumptives, Dr.

L. F. Flick reported that out of 76 patients so far admitted to the sanatorium at White Haven 15 have been practically cured. Only favorable cases are sent to White Haven.

Samaritan Hospital.—Ground was recently broken for additions to the Samaritan Hospital. One building 50x50 feet, one story and basement in height, is for offices and reception room. Adjoining there is to be a three-story and basement structure, 42x85 feet, occupied by wards, baths, nurses' rooms and diet kitchen.

Wills Eye Hospital, under the care of the Board of Directors of City Trusts, is said in the annual report of the president of the board to be in immediate need of money. He states that the hospital equipment is antiquated, its buildings dingy, and the new buildings unfinished. The income from the Wills estate is not sufficient for running expenses.

Visiting Nurses Society.—At the recent 16th annual meeting all the old officers were re-elected; Mrs. Henry C. Lea is president, Miss Lucy Davis corresponding secretary. Two new branches have been opened within the past year, making four branches besides the central office. The Society is doing much to give the poor and those of moderate means skilful nursing.

The Pediatric Society.—At the last meeting of this Society Dr. John Lovett Morse, instructor in the diseases of children in the Harvard Medical College, delivered an address upon "Some Diseases of the Kidneys and Bladder in Infancy." A reception was afterwards given to Dr. Morse at the Aldine. On the same day, Dr. Morse delivered a lecture at Jefferson Medical College.

The State Board of Health has passed resolutions requiring cuspidors in railway trains, and an effort is being made to secure legislation providing a penalty for non-observance of the rule. The resolution provides that a cuspidor shall be placed at each end of the day coaches, and one furnished for each seat of the smoking cars; further, that thorough cleansing and disinfection of the vessels shall be done at the end of each run. It is thought by many that the habit of spitting should be done away with and not encouraged by conveniences.

RHODE ISLAND.

Hospital Bequest.—By the death of John A. Holt, Woonsocket Hospital receives the income from one-third of 100 shares of preferred stock of the United States Rubber Company.

Compulsory Vaccination.—Both houses of the assembly have passed an act providing for vaccination of children and revaccination of adults, and prescribing penalties for violation of this law.

New Wing to Newport Hospital.—Mrs. Cornelius Vanderbilt has accepted plans for a new wing to Newport Hospital which she will have erected in memory of her late husband. The building will cost about $250,000.

State Sanatorium for Consumptives.—There has been introduced in the general assembly a bill authorizing the appointment of a board of five persons to have control of a state sanatorium for consumptives, and appropriating $100,000 to inaugurate the project.

GENERAL.

Smallpox.

United States: According to the health reports at Washington the number of cases throughout the country amounted last week to over 22,000.

Arkansas: Dr. George M. D. Cantrell, president of the State Board of Health, gave out the following statement: We do not know how many counties in the state have smallpox and we have no means of knowing except as reports may be made to the Board from time to time and requests made for the appointment of county boards. These requests are complied with in a perfunctory manner and there our power ends. We have no funds to work with, not even to pay for postage stamps, so what can we do? A year ago I went to Magazine to inspect the smallpox situation and lost considerable time. I have not yet received a cent for even the expenses of the trip, and some time ago I told Governor Davis I would make no more trips and pay my own expenses.

California: The health officer of Sacramento County reports 25 cases of smallpox in the county, all light and all quarantined.

Connecticut: The State Board of Health announces that during 1901, 78 cases of smallpox were reported in the state. These were distributed through 15 towns. During the year 1902 up to the present date, there have been reported 47 cases, making a total of 125 cases during the last 14½ months. Of the 125 cases thus far only 8 have proved fatal, being a death rate of between 6 and 7 per cent. only. The cases of the present year have occurred in 14 different towns. The 125 cases have been distributed among 24 different towns in the state. The remaining 144 towns are equally liable to the disease. Every new invasion of this disease is an occasion of much fright and anxiety, and always of very extraordinary expense. The method of preventing an invasion of smallpox is so simple that it is truly astonishing that an intelligent community neglects it. It is simply doing before the disease appears exactly what they all do immediately after its appearance. That is—vaccinate. Vaccinating is one hundred times cheaper than quarantining. An epidemic of smallpox has never occurred in a well vaccinated community. Vaccination should be performed in infancy, a re-vaccination at the age of 12 or 14 and subsequent vaccinations whenever an individual is exposed, or as in the present instance when an epidemic is prevailing.

District of Columbia: Referring to the matter of efficacy of vaccination in lessening the number of cases of smallpox in a community, the health officers state in reference to the 19 cases of smallpox reported since January 1, that 17 of the patients had never been vaccinated, one was never successfully vaccinated and one was successfully vaccinated nineteen years previous to the present attack of the disease.

Illinois: The Chicago Department of Health reports that among the six new cases of smallpox discovered during the week—none ever vaccinated—one was a cook in a large hotel. He worked in the kitchen for eight days while broken out with the disease. While there has been an increase of 162 per cent. in the total number of smallpox cases reported for the whole country since February 8, over the number reported during the corresponding period last year, there has been a reduction of a little more than 40 per cent. in the Chicago territory in which the active campaign by the railroad companies and health authorities is being carried on.

Indiana: There were 758 cases of smallpox reported in 36 counties and 3 deaths. In the corresponding month last year there were 165 cases in 15 counties and 2 deaths. The increase in deaths from smallpox was 50 per cent. and the increase in cases 176 per cent. The area of infection increased 140 per cent. The smallpox deaths occurred one each in Cass, Pulaski and Shelby counties.

Kansas: Dr. W. B. Swan, secretary of the State Board of Health, on March 12, issued his report for February on smallpox. During the month he was notified of 421 cases of the disease in the state, but no deaths resulted. In February, 1901, there were 1335 cases and 10 deaths.

Louisiana: In New Orleans during February there were 9 cases of smallpox, with no deaths.

Maryland: At the monthly meeting of the State Board of Health, March 12, it was stated that there were but 4 cases of smallpox in Maryland outside of Baltimore, and that they are widely separated. Four smallpox convalescents were discharged from quarantine March 15; 5 patients are left, 3 being convalescents.

Michigan: Reports to the State Board of Health show that smallpox was reported at 140 places last week. No death occurred from the disease during the month.

Nebraska: An Associated Press telegram states that: "Following a meeting of the State Board of Health at which it was announced that there were 764 smallpox cases in the state, the secretary of the board was ordered to communicate with the federal authorities as to the best means of stamping out the disease. It was decided to telegraph the Army and Navy Hospital Marine Corps to send a special messenger to Nebraska and the message will go to Washington some time during the day."

New York City: For the past few weeks there have been between 50 and 60 new cases of smallpox, which is higher than for the same period last year. Thus, in January of the present year there were 83 cases as against 59 for the same month of 1901, and 120 in February, 1902, as against 95 for that month in 1901. There have been over 400 cases of smallpox in this city since last August, and at present there are 160 cases in the hospital, a larger number than at any other time this year. On the other hand, the health department have been vaccinating about 34,000 persons a week during the past four weeks, 200 vaccinators being at work.

North Dakota: Dr. Henry H. Healy, Michigan, president of the State Board of Health, states that 186 cases of smallpox have been reported in North Dakota during the two weeks ending March 8.

Washington: Dr. Walter F. Morrison, Spokane, physician of Spokane County, reports 76 cases of smallpox during February.

Public Health Bills in Congress.—An extensive correspondence has been going on for some time between the Committee of the American Medical Association on National Legislation, consisting of Drs. H. L. E. Johnson, Washington, D. C.; William H. Welch, Baltimore, and William L. Rodman, of Philadelphia, with Dr. Edmond Souchon, president of the State Board of Health of Louisiana and the other state health officers throughout the country, and a number of other prominent members of the American Medical Association in relation to the Spooner Health Bill, the Perkins and Hepburn Marine Hospital Bill, the Ray Health Bills now pending in the National Congress. The correspondence culminated in the calling of a conference of state health officers by Dr. Edmond Souchon, which met at Washington City on the 12th and 13th inst. Among those present were Dr. Edmond Souchon, president of the Louisiana Board; Dr. James Evans, secretary of the South Carolina Board; Dr. A. H. Doty, quarantine officer, New York port; Dr. U. O. B. Wingate, secretary board of Wisconsin; Dr. William H. Welch, president, Maryland State Board; Dr. H. M. Bracken, secretary Minnesota Board; Dr. Henry D. Holton, secretary Vermont Board; Dr. Nowber, secretary Delaware Board; Dr. Green of Charleston; Dr. Cooper of Delaware; Dr. J. F. Durgin, quarantine officer, Boston port; Dr. McAllister of Missouri; Dr. T. G. Simmons, president South Carolina Board; Dr. Lewis, New York Board; Dr. Heller, Pennsylvania Board; Dr. W. H. Sanders, state health officer of Alabama; Dr. W. D. Goodman of Mobile; Surgeon-General Wyman, Marine-Hospital Service, and Dr. H. L. E. Johnson, Washington, D. C., representing the American Medical Association. The above-mentioned bills and their provisions were thoroughly discussed, and the conference decided by a favorable vote of all present except one, to recommend the passage of the Hepburn Bill, with a slight modification to Section 7. The following was adopted, and a committee of three members consisting of Dr. H. M. Bracken of Minnesota, Dr. Edmond Souchon of Louisiana, and Dr. Wm. H. Welch of Maryland, were appointed, together with Surgeon-General Wyman and Dr. H. L. E. Johnson, to appear before the Committee of the House and Senate and urge the adoption of the bill recommended as modified. The Committee appeared before the Committee of the House on Interstate and Foreign Commerce on the 13th inst., individually addressed the Committee on the subject and presented the matter agreed upon by the Conference as follows:

WASHINGTON, D. C., March 13, 1902.

Hon. W. P. Hepburn, Chairman of the Committee on Interstate and Foreign Commerce, House of Representatives.

Sir:—The President and Executive Officers of State Boards of Health and Port Quarantine Officers called to conference by Dr. Edmond Souchon, of New Orleans, met at the Metropolitan Hotel, Wednesday, March 12, to discuss the bills now before Congress bearing upon the creation of a National Health Service, namely, the Ray Bill (H. R. 10,595) and the Hepburn Bill (H. R. 7189).

Twenty medical men were present, representing all sections of the country. By request, Surgeon-General Wyman, of the Marine-Hospital Service, and Dr. H. L. E. Johnson, Chairman of the Legislative Committee of the American Medical Association, were also present.

After thorough discussion of the bills, a committee of five was appointed to consider the points discussed and report to the afternoon session of the conference. This committee made its report at 5 p. m., recommending but slight change in the Hepburn Bill (H. R. 7189). The only change that was suggested in this bill was based upon the wish of the physicians in conference to have the privilege of asking for a conference with the National Health Authorities at Washington, when in their judgment such conference would seem desirable. The changes are embodied in section 7 of said bill, a copy of which section, as amended, is herewith submitted.

Sec. 7. "That when in the opinion of the Surgeon-General of the United States Health Service the interests of the public health would be promoted by a conference with the State or Territorial boards of health authorities, the District of Columbia included, or on the application of five state boards of health or quarantine officers, the Surgeon-General of the United States Health Service is authorized to invite representatives of state boards of health and quarantine officers to send delegates, not more than one from each state or territory and District of Columbia, to said conference, and when thus convened said delegates shall be entitled to reimbursement for their necessary expenses of travel and of maintenances not exceeding five days at the place of conference in accordance with such regulations as may be made by the Secretary of the Treasury."

With these changes the Hepburn Bill (H. R. 7189) was indorsed by the conference, and a committee of three was appointed to present these facts to your honorable committee, it being considered unnecessary to take up the time of your Committee with the hearing of a larger number of men.

We are indebted much to Surgeon-General Wyman for advice and consultation in bringing about this harmonious feeling, and we submit our report with the hope that the Hepburn Bill may soon become a law. The necessity of a National Health Body has long been recognized, and it has been sorely needed. Such bodies already exist in the countries bordering upon the United States, namely, Canada to the North, and Mexico to the South.

Respectfully submitted, H. M. Bracken, Minnesota; Edmond Souchon, Louisiana; William H. Welch, Maryland.

On motion these resolutions were transmitted to the Chairman of the Committee on National Legislation with the request that they be approved by that Committee and the annual conference with the State Societies which meets in June, and that they urge before Congress the passage of the bill as amended.

The same Committee had a conference with Senator John G. Spooner, a member of the Committee on Public Health and National Quarantine of the Senate, and discussed the amendments proposed by the Conference, and urged its passage as amended. After a full discussion, Senator Spooner suggested the following verbal changes in the substitute for Section 7 of the Perkins Bill as modified by the Conference as follows:

"Sec. 7. That when in the opinion of the Surgeon-General of the United States Health Service the interests of the Public Health would be promoted by a conference with the State or Territorial Boards of Health or health authorities, the District of Columbia included, he may, or on the application of five state boards of health or quarantine officers, the Surgeon-General of the United States Health Service shall invite representatives of state boards of health and quarantine officers to send delegates, not more than one from each state or territory and District of Columbia, to said conference."

The Committee, including the Surgeon-General of the Marine-Hospital Service, Dr. Wyman, and the Chairman of the Committee on National Legislation of the American Medical Association, Dr. H. L. E. Johnson, approved of the recommendation of Senator Spooner and presented the following to be used by him in connection with their original recommendation when the matter is taken up for consideration by the House and Senate Committees:

WASHINGTON, D. C., March 13, 1902.

Hon. John G. Spooner, United States Senate.

Sir:—We, the representatives in the Committee of the Conference of State Health Officers, approve of the suggestions offered by you and set forth in the enclosed modified Section 7 of Senate Bill 2162, known as the Perkins Bill, and in so doing feel that we are expressing the views of the conference.

Respectfully, H. M. Bracken, Minnesota; Edmond Souchon, Louisiana; William H. Welch, Maryland.

CANADA.

Sir William MacDonald, Montreal, has donated $10,000 for the purpose of erecting a new day nursery building in that city.

Vaccination and Smallpox in Montreal.—Dr. Laberge, the medical health officer of Montreal, has reported to the health committee of that city that since last November 335 cases of smallpox had been reported in the city, the average varying from two to four cases per day. The report also showed that from January 15 to February 28, 24,233 people had been vaccinated.

Smallpox and Vaccination at Toronto University.—The student body of Toronto University has been considerably exercised during the past week owing to the fact that smallpox had gained a hold on a fourth-year science man. President Loudon, on hearing of the facts, immediately communicated with the city medical health officer, Dr. Charles Sheard, and also with the Provincial Secretary of the Board of Health. The case was at once removed to the Isolation Hospital and then a general vaccination of the entire student body of the several departments of the University was undertaken.

New Civic Hospital for Montreal.—At last Montreal is to have a new Contagious Diseases Hospital. The proposal passed through the City Council almost unanimously last week. It is to be built on Fletcher's Field, will be for the care of patients suffering from infectious diseases other than smallpox, and will cost $50,000. The old smallpox hospital will remain for that class of patients. Although the Catholic body, headed by Archbishop Bruchesi, made strong representations to Council for a separate institution, the Council voted that only one hospital was desirable. The Archbishop states he will not accept a non-sectarian hospital for his people.

Ontario Medical Council Affairs.—The special committee of the Ontario Legislature appointed to consider the amendment to the Ontario medical act with regard to eliminating from the Ontario Medical Council the Homeopathic and College representation has been received and adopted by the House. According to this report it is proposed to submit, probably early in the fall, questions to the medical practitioners of Ontario which would afford definite information upon points which have long been in dispute, namely, the constitution and representation in the Council. If there should appear much desire for a change, the Government will then act in the matter. In the meantime the report proposes that the physicians who have refused to pay their annual assessments to the Council shall have votes as well as those who have paid them.

The Victorian Order of Nurses.—During the past week the Board of Governors of the Victorian Order of Nurses held their annual meeting at Ottawa. The principal feature in connection with the work of the order during the past year was the success which attended the efforts put forth in connection with the Lady Minto Cottage Hospital Fund, the sum of $25,000 having been raised almost entirely by the efforts of Lady Minto alone. From this sum $6000 has been paid out on hospitals in the Canadian Northwest Territories, and $8000 more has been allotted for similar purposes. New branches of the order were opened at Pictou, N. S., and Dauphin, Man.; at the former place a wing of the Marine Hospital is now supplied with nursing service by the Victorian Order. The financial report stated that there had been some falling off in the endowment fund to yield $2500 annually.

Tuberculosis in Quebec Province.—The Government of the Province of Quebec has been requested by a member of the local legislature to produce all papers and correspondence received during the past year regarding tuberculosis and its treatment. This will be provocative of serious discussion in the House, and an endeavor will be made to obtain from the Government assistance for the establishment of sanatoria for the treatment of consumptives. The Province of Quebec already possesses a sanatorium, but it does not derive any financial assistance from the Province. This is the Laurentian Sanatorium situated at St. Agathe des Monts, not far from Montreal, which is directed by Dr. Arthur J. Richer. Dr. Paul E. Prevost, recorder of vital statistics for the Province, has prepared a report which shows that in 1897 3079 persons died in that Province from Tuberculosis; in 1898, 2876; in 1899, 3085; in 1900, 3015. The figures show that the death-rate from tuberculosis is three times that of any other disease, except infantile diarrhea. In Montreal alone in 1900 there were 791 deaths from consumption.

Dominion Registration.—Dr. Thomas G. Roddick, M.P., received the applause of both sides of the House of Commons on the conclusion of his address before that body on the occasion of the second reading of his bill to provide for a Dominion Medical Council. Objection was raised by one of the members from the Province of Quebec as to the constitutionality of the measure, some one also stating that the Medical Faculty of Laval University was quietly antagonistic to the measure. The medical profession throughout Canada, however, are practically a unit in the matter, but they are fearful that the premier, Sir Wilfred Laurier, may place his veto on the bill on account of this mooted constitutionality. Owing to the fact that Dr. Roddick wished his bill to be referred to a special committee of the House, Sir Wilfred did not oppose its second reading. The constitution of the proposed Dominion Council, as now set down by its promoter, will number 39 members, as follows: Eight from the Province of Quebec, Laval University being given an additional member; 9 from Ontario; Nova Scotia and Manitoba 4 each; New Brunswick, British Columbia and the Northwest Territories, 3 each; Prince Edward Island, 2; the Homeopathic body, 3. The medical population in the Northwest Territories has grown in the past year from 110 to 211.

Correspondence.

The Journal Abstracts.

DAYTON, OHIO, March 4, 1902.

To the Editor:—Anent your editorial on "abstracts" in issue of March 1, p. 587, permit me to say that to this member of the profession they are an *extremely* valuable addition. While the papers of the Association and the original communications may or may not strike my fancy, the abstracts always contain something of interest to me. Do not give up the abstracts. Respectfully, WILFRED TAYLOR, M.D.

Medical Lectures to the Laity.

MACON, GA., March 16, 1902.

To the Editor:—I am impressed with what you have had to say in THE JOURNAL, March 1, page 556, about the propriety of medical societies having an authorized medical instructor of the people. I think the profession needs to enlighten the public and they would be glad to hear the truth from such a source. Yours very truly,

M. M. STAPLER, M.D.

Creosote in Pneumonia.

FT. WORTH, TEX., March 15, 1902.

To the Editor:—In order to prepare a statistical table showing the results of the treatment of pneumonia with creosote or creosote carbonate, I ask the aid of the profession. I request every physician who has given the treatment a trial to kindly send me, on a postal card, during April, 1902, the number of cases treated and number of deaths; state whether of record or an approximation.

Please answer yes or no to the following questions: 1. Do you believe creosote ever aborts pneumonia? 2. Do you believe the majority of cases are mitigated by it? 3. Have you found cases which, having plenty of time, were entirely uninfluenced by it?

To every one favoring me with a report, I will mail a copy of the condensed reports. I. L. VAN ZANDT, M.D.

Book Review Criticised.

PHILADELPHIA, PA., March 1, 1902.

To the Editor:—The review of my book, "Studies of the Internal Anatomy of the Face," in your issue of January 18, reminds me of the story of a boy who was being paddled by his father for some supposed dereliction. In spite of the fact that the punishment was vigorously applied, the boy kept laughing. The old man, astonished and angry that the thrashing failed to produce its usual effect, yelled out: "What are you laughing about, you young jackanapes?" "I'm laughing at you, Dad; you're dead wrong this time. You're licking the wrong boy. I didn't do it!"

Two statements are attributed to me in this review for which no foundation can be found in the book. The first of these is in the second paragraph, which says: "The illustrations are reminders to the student of anatomy that as the author remarks 'owing to the degeneracy of the face and jaws it is possible, though doubtful, that in a thousand bones two or three should be found which exactly correspond with the typical bones so pictured.'" Observe that the so-called quotation is introduced by the phrase, "as the author remarks." The author made no such remarks. Here is what he did say: "There is, doubtless, a typical or typal form for each bone, but it is not often found in nature. If we were to photograph a thousand temporal bones for example, and make a composite of the entire number, the composite would properly be accepted as figuring the typal temporal. It is possible, though doubtful, that in a thousand bones two or three could be found which exactly corresponded with the typal bone so pictured."

There is not a word about "degeneracy;" no attempt is made to ascribe a cause for the condition referred to. There was no thought of "degeneracy" in connection with the matter, nor is there anywhere in the context any justification for lugging it in. The misquotation in your review seems to me to be a wilful perversion of facts, for what purpose I can not conceive.

The second misrepresentation of what I said is in the last sentence but one of the article: "His views as to the predominance of the cerebellum as a cause of prognathism would appear antiquated to modern anatomists." I said nothing of this kind. What I did say was that a large cerebellum and the prehensile dentition of the savage were found together, but I had no thought of suggesting the one as the cause of the other.

Legitimate criticism of the book was invited when it was sent for review. It was the right and duty of the reviewer to point out its faults. But I submit that the perversion of plain statements, the setting up of a man of straw—for the building of whom no material is to be found in the book—for the fleeting happiness of demolishing him, is not legitimate criticism. I can only account for it on the supposition that your reviewer has the "degeneracy" fad in virulent form.

Yours truly, M. H. CRYER, M.D.

The Will of the People, Not of an Oligarchy.

BOSTON, MASS., March 13, 1902.

To the Editor:—Prof. William T. Sedgwick, Boston, in an address published in a recent number of THE JOURNAL "confesses with sorrow" the lack of success of efforts to prevent the study of "temperance physiology" as now required in the public schools of this country.

He first offers in defense of his opposition the fact that Horace Mann, in 1842, did not include temperance physiology in his essay on "The study of Physiology in the Schools," but he omits to add the significant accompanying fact of history, namely, that the recommendations of Horace Mann's essay that "physiology should be taught in the schools," aroused in Massachusetts such a storm of bitter opposition from the doctors and men of official science, that the existence of the Massachusetts State Board of Education and its secretary, Horace Mann, were saved by only a hair's breadth from being entirely legislated out of office. But time has vindicated Horace Mann's recommendations while his opponents are forgotten.

Sixty years have passed, and Massachusetts, as well as every state, and the National Congress have made physiology and hygiene, which latter includes the nature and effects of alcoholic drinks and other narcotics, a mandatory public school study. Prof. Sedgwick is now objecting, not to this study, he says, but to the legal specifications which have made it a success. First, he objects to its being taught "to all pupils." He does not tell when or by what class of pupils he would have it omitted. In our country "all pupils" of to-day are destined to be the sovereign people of to-morrow. Hence, looked at from the standpoint of the state, it can not afford that one single pupil should not receive the utmost instruction on this subject needed to fit that pupil for a future sovereignty of intelligent sobriety.

From the standpoint of the individual, we ask, from whose child shall this educational method for the prevention of intemperance be withheld? Shall it be from the children of the poor, the rich, the foreign born, or the home born? We are answered by the command of the greatest of all Teachers that the supreme message for the prevention of evil and the establishment of right should be given "to every creature" in "all the world." That inclusive command and precedent not only justifies all pupils getting this education, but implies neglect of duty if it is excluded from any.

If Prof. Sedgwick's objection is to the requirement of the study through specified grades as his reference to the Illinois law implies, we answer: The formation of right habits is the object sought. The child's habits are rapidly formed, new ones each year as it proceeds through the first primary to the high school. It is therefore self-evident progressive instruction which will guide in the formation of right habits should be given especially during the primary, grammar and first year of the high school in order to keep pace with and guide the child's development. The boy, or girl, who leaves school at any point in the school course with as much knowledge as he can comprehend of the laws of health, including those which warn against the use of alcoholic drinks and other narcotics, has thereby a most valuable equipment for the battle of life.

The diffusion of this knowledge in our country is now as universal as the schools. It does not, we grant, add to the value of brewing stocks, but evidence is not lacking that it is proving of great value to the human stock in the increase of health due to better knowledge of sanitary laws, consequent lengthening of life, increased sobriety of the American workman, which sobriety is acknowledged to be one cause of the commercial supremacy of this country in the markets of the world, etc.

Prof. Sedgwick says he was "shocked," "much disturbed to find that an author had actually felt bound to weave in a lesson on alcohol with his discussion of the physiology of muscle, of nerve, of digestion, of vision, and each of several other sections of the subject."

Why should not the deleterious effects of alcohol on muscles be taught in connection with the study of the physiology and hygiene of the muscles? Prof. E. Destrée, University of Brussels, by actual experimentation proved that the "total work product obtained (from the muscles) with the use of alcohol is less than that obtained without it." Our boys and girls need to know that fact. Why should not the fallacy of the idea that alcohol is an aid to digestion be pointed out in connection with the hygiene of digestion, when Prof. Chittenden distinctly says of his experiments: "The results obtained suggest a tendency toward prolongation of the period during which the meat remains in the stomach when alcohol fluids are present." Why is not the treatment of the physiology and hygiene of the nerves the proper place for pointing out the effect of alcohol upon them when H. J. Berkeley, M.D., of Johns Hopkins University, reported as a result of the experiments he performed for the Committee of Fifty that alcohol "possesses the quality of destroying the protoplasm of the nerve cells and annulling its functions." Why not in teaching the care of the eyes mention the danger from the use of alcohol when the senior surgeon of the New York Ophthalmic Hospital says: "The respectable moderate drinker who never takes too much or oversteps the boundary line of decency but goes round half full all the time exposes himself to the risk of losing his eyesight, which in this case is incurable."

To Prof. Sedgwick's complaint that some laws require text-books on this subject for pupils' use and specify the amount of temperance matter they shall contain, etc., we reply: The tendency of careless, unsympathetic school boards to fail in providing well graded text-books on this subject, books that contain the matter the law requires taught as one source of information for pupils sufficiently advanced to use text-books on other subjects, induced the National Congress and many states to legally require that such text-books shall be provided. This requirement has led to the preparation of a valuable school literature by men of acknowledged scientific standing and to the revision of nearly all the imperfect books. Why should Prof. Sedgwick complain? No one has proved these books inaccurate, nor that their use in the schools has not contributed to individual and public good. The old unrevised, ungraded, and therefore unindorsed books contain such teaching as the following, for children in primary grades: "the tendon of Achilles is the tendon of the gastrocnemius and soleus muscle," a statement as clear as mud to the primary child. The people want better books for their children and hence have so legislated that better books are produced.

Prof. Sedgwick further charges me with being a follower of the teachings of Sir Benjamin Ward Richardson (whom he calls an "able but erratic physician"), and with being "the creator of this astonishing movement" for temperance education. I happened to have had enough previous study in chemistry to enable me to appreciate the reports of his experimental work on alcohol and no one has proved his findings inaccurate. Although I never saw Dr. Richardson, he taught me much which I have tried to pass on.

As to being the "creator" of this movement, while I do not deny nor apologize for having tried to serve my country through helping to get this education for its children, I hasten to say that without the aid of the hundreds of thousands of consecrated women in the Woman's Christian Temperance Union, the organized motherhood of this and other lands, whom it is my fortune to represent in this matter, without the coöperation of the good men in this and other countries, in the National Congress, state legislatures and parliaments, every state in the United States would not now have a temperance education law nor would the movement have become, as Prof. Sedgwick admits, world-wide.

Prof. Sedgwick, in referring to Commissioner Harris' connection with the Advisory Board of this Department, says: "As to the propriety of the Commissioner's connection with this movement I make no comment." The Advisory Board of this department consists of eleven members, six of them physicians, three of whom are professors in medical colleges, three men eminent in education and two in ethics. The committee from this Advisory Board whose duty it is to examine and pass on text-books consists of five of the physicians mentioned above, one of the educators, two representatives of ethics, and the Superintendent of Scientific Temperance Instruction of the World's and National Woman's Christian Temperance Union. Dr. Harris, the National Commissioner of Education, and Dr. Barrows, President of Oberlin College, members of the Advisory Board, are not on its text-book committee. Hence, there is no occasion for Prof. Sedgwick's subtle reference to Dr. Harris' position on this Board. The American people will feel it just and right that their national commissioner of edu-

cation should be an adviser of a department of education which has been legally adopted by the whole people.

If Prof. Sedgwick had only quoted the whole preamble and recommendations passed by the National Superintendents of Schools in Chicago last year, the readers of THE JOURNAL would have seen that their action was positively on the side of temperance instruction and not mere "guarded paragraphs" as he claimed. They repudiate Prof. Atwater's teachings of the year before as to alcohol being a food, and put themselves squarely on record on the whole subject as the following paragraphs from their report not quoted by Prof. Sedgwick shows:

The department of superintendence agrees cordially with the special advocates of the temperance cause in holding that everything which public instruction can do in the battle against intemperance ought to be done, and that both physiology and hygiene should be so taught as to leave in the minds of children and youths an adequate and proper knowledge of the effects of alcoholic drinks, stimulants, and narcotics on the human system.

Since the last meeting of this department there has been considerable discussion of the question as to whether alcohol under any conditions is properly to be defined as an article of food. Medical authorities are quoted in support of both sides of this question, but no authority has been found to maintain that alcohol is a food in the ordinary sense of that term. The question of the supposed food value of alcohol is a technical one for medical experts to determine, and not one which needs to concern the man and woman who are engaged in the work of public instruction of children and youth. For them it is enough to know that its use as a beverage is injurious, and that all authorities agree in deprecating the formation of the drinking habit and in commending all practicable efforts through public instruction to promote the cause of temperance.

Prof. Sedgwick appears to have some fears that a writer who desires to publish an elementary text-book on physiology and hygiene, before he can obtain a publisher or a market, may have to secure the indorsement of Mrs. Mary H. Hunt, etc. Anybody can write a text-book on this subject as far as the Scientific Department of the Woman's Christian Temperance Union is concerned, but the mothers in any community have a perfect right to oppose their children studying that book, if, in their judgment, it fails to teach the whole truth against the most destructive of human habits. They have a right through organization to secure and protect this form of education for their children, and to appoint one of their number to act with them in searching for truth, and, aided by men of science, to refuse indorsement to books that do not contain the truth. I make no apology for its being my fortune to have been thus officially appointed, and woe is me if in this I fail in aught of my utmost duty, for history will show that organized motherhood in securing and protecting this education for all the children of this nation, has prevented the greatest peril to our government of the people, namely, the lack of capacity for self-government resulting from the use of alcoholic drinks and other narcotics.

As to the publisher's part in this connection, I would say: The publisher is a business man who knows that his success depends upon his supplies meeting the demands of the market. If the condition prevails which Prof. Sedgwick describes, it is good evidence that publishers have found that the American people do not want their children to study what the publishers themselves call "rum books" and that the indorsement of this department is a guarantee to the public that the books bearing that indorsement are not of that character but instead contain the truths the people want taught their children. Therefore, the writer who wishes to put a "rum book" on the market must find publishers who will ignore the law of supply and demand; or, he must persuade the people to allow their children to be sacrificed to the Moloch of intemperance either for his personal gain or to avoid shocking the sensibilities of scientific gentlemen who see no place in physiology and hygiene for warning against that disobedience of hygienic law which causes, as Gladstone said, more havoc to the human race than war, pestilence and famine.

No man has ever yet been able to present a reasonable argument for opposing the temperance education movement. The brewers and distillers, of course, can not imagine any other than a financial motive that could induce the devotion and labor that has brought this movement to its present position in this country and the world. Hence they charge, and have from the first, that it is a "book job." In the absence of reasonable objection other opponents reiterate this liquor dealers' charge. Prof. Sedgwick falls into line with them when he attempts to support his objection with a quotation from a letter written, he says, by a representative of a publishing house which charges that "financial benefit" is the motive of the temperance physiology movement. On reading that, I at once wrote Prof. Sedgwick asking for the name of his informant and whether that informant had submitted any evidence in support of his statement. Prof. Sedgwick replied that he did not feel at liberty to give the name of his informant who, he says, "did not submit any evidence bearing upon his opinion." In other words, Prof. Sedgwick makes this accusation public without examining the evidence for the same and without knowing so far as he reports whether any such evidence existed. If the man who made this charge is reliable, why should he be unwilling that Prof. Sedgwick should mention his name? As to the intimation of a mercenary motive, I state that neither I, nor my Advisory Board, nor the constituency we represent, are one penny richer for the sale of any text-book on this subject bearing our indorsement. Resort to such charges is evidence of conscious poverty of argument against this movement. As to the promoters of temperance education in the public schools being a "self-constituted oligarchy," as Prof. Sedgwick says, we reply:

The Superintendent and Advisory Board of the Department of Scientific Temperance Instruction in Schools and Colleges are elected by the World's and National Woman's Christian Temperance Union to take charge of the work of that society for the study of temperance physiology in schools. Thus this department has for its constituency the largest organization of women in the world, who are banded together to secure as one of their objects, the protection of this special education for their children. Hence, to call the work of this department that of a "self-constituted oligarchy," as Prof. Sedgwick does, shows utter misapprehension of facts. "A self-constituted oligarchy," i. e., "power exercised by a few" who are self-appointed, could not write its ideas embodied in law on the Federal statute books and those of all the states of this great republic. The laws requiring this study and whatever is necessary to its being taught represent the 75,000,000 American people who have decided that their children shall have this special education. It is simply futile to try to belittle this movement by efforts to make it appear as anything less than a national one which is rapidly becoming world-wide.

MARY H. HUNT.

World and National Superintendent of the Department of Scientific Temperance Instruction of the Woman's Christian Temperance Union.

Married.

JOHN R. GROH, M.D., Lebanon, Pa., to Miss Annie Behney, of Fredericksburg, Pa.

JOHN B. UNDERWOOD, M.D., St. James, Mo., to Miss Nora B. Bibb, of Elsberry, Mo., March 5.

THOMAS A. KILLIP, M.D., Rochester, N. Y., to Miss Louisa Barnes, of Dunkirk, N. Y., March 6.

DAVID F. WEEKS, M.D., Trenton, N. J., to Miss Maude A. Clampitt, of Oak Lane, Philadelphia, March 12.

Deaths and Obituaries.

Arthur Titus, M.D. Cincinnati College of Medicine and Surgery, 1865, a prominent member of the profession in Portsmouth, Ohio, died recently. The Hempstead Academy passed the following resolutions of respect and sorrow, at its meeting, March 10:

WHEREAS, This Society learns with sincere sorrow of the death of our fellow laborer, Dr. Arthur Titus, we desire to express our testimony and sympathy in this occasion; therefore, be it

Resolved, That Dr. Arthur Titus was the highest type of the general practitioner, with a cheerful disposition, a strong decided character and a scientific mind; which was best displayed at the bedside of the sick. Ethical in all his intercourse with his fellow practitioners; present whenever possible at our society meetings and ever willing to extend his aid and counsel to his associates in medicine and surgery, a patriot that devoted three years of his life as surgeon during the Civil war.

Resolved, That we extend to the bereaved wife and family our great sympathy; and that we will so far as possible attend his funeral in a body, and that a copy of these resolutions be given to his family. [Signed] M. S. Pixley, M.D., P. J. Kline, M.D., S. S. Halderman, M.D., Committee.

Lawrence Ashton, M.D. New York University, 1885, one of the leading physicians of Northern Texas, and a member of the American Medical Association, died at his home in Dallas, March 6, after a brief illness, aged 57. He was a private student of the late Prof. A. L. Loomis of New York. During his residence in Texas he was an active worker in the State Medical Association; he was a member of the legislative committee two years ago, and was an earnest advocate of the present law governing the practice of medicine. He was at the time of his death president of the faculty of the Dallas Medical College, medical department of Trinity University and professor of practice of medicine.

Thomas A. Keables, M.D. University of Georgetown, Washington, D. C., 1872, formerly of Wilmington, Del., but of late years a member of the medical staff of the Veterans' Home, Napa, Cal., died at that place, March 4, from chronic Bright's disease after a long illness, aged 58. He served throughout the Civil war, and represented Mono, Alpine and Inyo counties in the thirty-second session of the California legislature.

Arthur T. Muzzy, M.D. College of Physicians and Surgeons, New York, 1879, a specialist on the eye and ear, assistant surgeon at the New York Eye and Ear Infirmary, a member of the Board of Managers of Christ Hospital in Jersey City, and consulting physician for the eye and ear at Isabella Heimath Home for Aged Couples, died from heart disease at the Presbyterian Hospital, New York City, March 4, aged 50.

A. Philo Drake, M.D. Western Reserve University, Cleveland, 1850, a veteran of the Civil war, one of the best-known physicians of Barry County, Michigan, where he had practiced for more than half a century, and a member of the American Medical Association, died at his home in Hastings, very suddenly, March 10, aged 74.

Andrew J. Bowers, M.D. Miami Medical College, Cincinnati, 1854, president of the Dearborn County Medical Society, a member of the State Medical Society, for two terms a member of the legislature, and for nearly half a century a practitioner at Moores Hill, Ind., died at his home, March 6, from pneumonia, aged 76.

Andrew B. Chapin, M.D. University of Michigan, Ann Arbor, 1861, a practitioner of Mt. Clemens, and for two years mayor of that city; a surgeon throughout the Civil war, and at one time a member of the faculty of the Detroit College of Medicine, died at his home, March 9, from paralysis, aged 64.

James W. Hines, M.D. University of Virginia, Charlottesville, 1861, during the Civil war a surgeon in the Confederate service, but for the last 22 years a practitioner of Le Mars, Iowa, died at his home in that city, March 9, from cancer of the stomach, after an illness of eight weeks, aged 65.

Joseph Ilowiecki, M.D. University of Erlangen, Germany, 1882, who came to Detroit, Mich., in 1888, and was a prominent figure in Polish social and political circles in that city, died from heart disease, February 22, after an illness of more than a year at Skallierzyce, near Posen, Poland.

Louis B. Tuckerman, M.D. Long Island College Hospital, Brooklyn, N. Y., 1877, a prominent physician of Cleveland, Ohio, and a member of the American Medical Association, died at his home, March 5, after an illness of six weeks, from an intestinal complication, aged 54.

Charles O. Carpenter, M.D. Berkshire Medical College, Pittsfield, Mass., 1860, a veteran both of the Navy and Army in the Civil war and a well-known practitioner of Holyoke, Mass., died from pneumonia, at his home in that city, March 7, after an illness of six days, aged 63.

John H. Morton, M.D. Marion-Sims College of Medicine, St. Louis, Mo., 1897, a practitioner of Courtland, Cal., was drowned while on his way to make a professional call, March 2. He was a member of the American Medical Association.

A. Lee Barron, M.D. Memphis Hospital Medical College, Memphis, Tenn., 1898, a physician of Sweetwater, Ala., was shot and instantly killed in a quarrel over family affairs, at Sweetwater, March 7. He was about 30 years old.

Charles D. Hill, M.D. Medical School of Maine, Brunswick, 1880, a member of the American Medical Association, and a physician and surgeon of high standing, died at his home in Bethel, Maine, from typhoid fever, March 7, aged 47.

William W. Collins, M.D. University of Michigan, 1852, for 38 years a physician of Albion, Mich., and at one time president of the State Medical Society, died at his home, March 7, from paralysis, after an illness of six years, aged 77.

Jarvis E. Smith, M.D. College of Physicians and Surgeons, New York, 1854, a leading practitioner of Wayne County, N. Y., died at his home in Clyde, March 9, from abdominal cancer, after an illness of several months, aged 73.

Hunter St. John, M.D. College of Physicians and Surgeons, New York, 1886, who had recently moved from Minneapolis, Minn., to Pittsburg, Pa., died in the West Penn Hospital in that city, March 2, from heart disease.

George M. Saul, M.D. Cooper Medical College, San Francisco, a native of Petaluma, Cal., but who recently settled in Hawaii, died at the hospital in Honolulu, February 17, from typhoid fever, aged 26.

N. A. Lancaster, M.D. Medical College of Virginia, Richmond, 1898, a planter and practitioner of the Palmyra neighborhood, La., was drowned by the capsizing of the steamer Providence, March 12.

Joseph P. Kelley, M.D. Bellevue Hospital Medical College, New York, 1888, who had practiced since his graduation in Providence, R. I., died at the Rhode Island Hospital in that city, March 6, aged 37.

Alpheus H. Julian, M.D. Medical College of Indiana, Indianapolis, 1879, a well-known physician of Janesville, Cal., died from pleuro-pneumonia at the Alameda Sanatorium, February 22, aged 49.

James McLaren, M.D. Medical Department of Victoria College (Rolph's School), Toronto, a veteran medical practitioner of Ontario, died at Deer Park, a suburb of Toronto, March 7, aged 78.

William H. Chapman, M.D. University of Alabama, Mobile, 1873, a prominent physician of Geneva, Ala., died at his home in that place, March 5, from paralysis after a prolonged illness.

Thomas Cave, M.D. Washington University, St. Louis, 1872, an esteemed physician of Antwerp, Ohio, died at St. Louis, where he had gone to be operated on for cancer, March 6.

William H. Presby, M.D. Dartmouth Medical College, Hanover, N. H., 1887, a practitioner of Salem, N. H., died February 27, after a long illness, from paralysis, aged 45.

Joseph T. Kirkpatrick, M.D. Jefferson Medical College, 1877, an influential citizen and popular practitioner of Tunnel Hill, Ga., died at his home in that place, March 1.

Andrew C. Rankin, M.D. Starling Medical College, Columbus, Ohio, 1852, a retired physician of Chicago, died at his home after a surgical operation, March 5, aged 75.

Charles Blank, M.D. University of Munich, Germany, 1845, who had practiced medicine at the same address in St. Louis, for fifty years, died at his home, March 9, aged 80.

Samuel S. Rogers, M.D. University of Pennsylvania, 1849, an eminent physician of Western Pennsylvania, died at his residence in Millsboro, February 28.

W. F. Ball, M.D., an old practitioner of Mantua Station, Portage County, Ohio, died at his home in Darrowville, near Akron, March 1, aged 65.

George W. Jackes, M.D. Toronto University, 1888, died suddenly at his home in Eglinton, Toronto, March 7, from apoplexy, aged 51.

John Storrs Hall, M.D. Milwaukee Medical College, 1897, died at his home in Ripon, Wis., March 4, from pneumonia, aged 31.

William E. Brickhouse, M.D. University of Pennsylvania, 1851, died recently at his home in Belle Haven, Va.

Alf. H. Blackman, M.D. Barnes Medical College, St. Louis, 1900, died at his home in Junction, Ark., March 4.

Elias Smith, M.D. University of Michigan, 1866, died at Whitmore Lake, Mich., March 6.

Book Notices.

MOSQUITO BRIGADES and How to Organize Them. By Ronald Ross, F.R.C.S., D.P.H., F.R.S., Walter Meyers Leeturer in Tropical Medicine. Cloth. Pp. 100. Price, $1.05. New York: Longmans, Green & Co. 1902.

This little volume is the result of most recent researches and discoveries in regard to the dissemination of some of the most important diseases that afflict mankind, especially in the warm or tropical climates. It is a book that ought to have a wide territorial circulation and one that should be read by every medical colonist and public health officer in a country where malaria exists. The author speaks with positiveness, and as an investigator he has earned the right to have his opinions respected. The author commends American methods in Cuba

as compared with the slow and comparatively inefficient methods of the English colonial authorities. It must be remembered, however, that what has been done there has been done under military government and the ordinary machinery of the law was somewhat in a condition of suspended activity, the more rapid military methods taking its place. There is no doubt, however, that sanitary organization and service is yet largely a matter of the future and that much requires to be done to bring about a better state of things, not only in British possessions, which are particularly criticised, but also in our own country and everywhere where the enforcement of sanitary measures depend on civil and political authorities. The book is a timely and valuable one.

CHEMICAL PATHOLOGY IN ITS RELATION TO PRACTICAL MEDICINE. By C. A. Herter, M.D., Professor of Pathological Chemistry in the University and Bellevue Medical College, New York. In one 12mo volume of 454 pages. Cloth, net, $1.75. Philadelphia and New York: Lea Brothers & Co.

This work consists in a series of lectures delivered at the University and Bellevue Hospital Medical School during the sessions of 1899, 1900 and 1901. They give a very favorable impression of the thoroughness of the course, though the author modestly says that he has only aimed to sketch the leading characters of the pathologic and physiologic processes, without describing them fully or systematically. The student who has absorbed the instruction here given ought to be thoroughly competent, so far as these particular subjects are concerned, to enter upon the practice of medicine. Each chapter concludes with a brief enumeration of the leading articles on the subject, which will be useful to the student for reference, accompanied, besides the titles, by some short abstracts of the articles enumerated. The book is excellently indexed and is throughout a valuable text-book on its special subject.

MUNICIPAL ENGINEERING AND SANITATION. By M. N. Baker, Ph.B., C.E., Associate Editor of *Engineering News*. Cloth. Pp. 317. Price, $1.25. New York: The Macmillan Co. 1902.

The need of a work of this kind brought up to date is obvious. Its intent is to furnish information, as the author says, to that large and rapidly growing class of persons who as officials and citizens are trying to improve municipal conditions. Every citizen should have some idea of the subjects here considered; for some of them come directly under his eye in almost every phase of civic life. If some of the ideas here advanced were generally adopted our cities, both large and small, would be very much more desirable places of residence than they are. The author's sensible opinion in regard to municipal extension, for example, could be very profitably read by the citizens of some of our municipalities within the last few years. We consider the work not strictly a medical one, but one for general reading and would be glad to bespeak for it a wide circulation.

Association News.

February Meeting of the Board of Trustees.

Pursuant to a resolution adopted by the Board of Trustees at the June meeting directing the Secretary of the Board to publish in THE JOURNAL, for the information of the members of the Association, a synopsis of the business transacted at each meeting, the following is respectfully submitted:

The Board of Trustees met in regular meeting Feb. 21-22, 1902, at Chicago, with the President, Dr Happel, in the Chair, Dr. Johnson, Secretary. All members of the Board were present except Dr. Rodman, who was absent on account of illness.

The minutes of the previous meeting were presented and approved. The Treasurer, Dr. Newman, presented his annual report together with the report of the Public Auditor, which showed the finances of the Association to be in excellent condition, and the circulation of THE JOURNAL increasing. The report will be read at the Saratoga meeting before the House of Delegates.

Several accounts were presented to the Trustees for approval which were incurred in connection with the personal office of some of the officers of Sections. These were disallowed, and the Secretary directed to notify the Chairmen and Secretaries of the various Sections that they must pay their own expenses, and that the Association will not be responsible for such expenses; further, that where specific appropriations are made, that amount shall not be exceeded.

In connection with THE JOURNAL office, it was found necessary, in consequence of the increased work, to purchase an automatic feeder and folder, also another printing press, the necessity for which being clearly demonstrated to the Board of Trustees. Considerable time and discussion was given to the matter of advertising in THE JOURNAL, and it was decided that advertisements of external remedies should be rigidly scrutinized, and that all such should be subjected to the same rule governing the admission to space in THE JOURNAL which applies to the publication of internal remedies, and further, that no advertisement of proprietary remedies shall be advertised in THE JOURNAL if such remedies are advertised in the lay press. Several firms who had made application for space in THE JOURNAL were notified by the direction of the Board that their advertisements would not be accepted unless they positively agreed to abide by the regulations of the Trustees. The editor was instructed to continue his individual efforts and carefully edit all advertisements before permitting them to appear in THE JOURNAL. A vote of thanks of the Board was tendered to the editor, Dr. George H. Simmons, for his faithful and efficient services and successful conduct of THE JOURNAL and the office of Secretary of the American Medical Association during the past and previous years.

In consequence of the present overcrowded condition of the printing office of THE JOURNAL, and a notification from the owners of the building that a considerable advance would be demanded on the present rental, the Board considered it imperative in the interests of THE JOURNAL and the American Medical Association to provide more space for the printing plant and offices. The following preamble and resolution was adopted:

WHEREAS, The present building rented by the Association for the publication and business of THE JOURNAL is wholly inadequate in space on account of the increased business demands, and whereas, no more space can be obtained in the building at present occupied, it was moved and carried, that the property located on the northeast corner of Indiana Street and Dearborn Avenue, in the City of Chicago, measuring 80 by 100 feet, be purchased for the use of THE JOURNAL and the other business of the American Medical Association.

The matter of securing the new site for THE JOURNAL had been carefully studied and investigated since the early fall by each member of the Board of Trustees, particular attention and investigation being carried on during this time by the resident trustee, Dr. Ingals, who has been untiring in his efforts in behalf of the interests of the Association. At a comparative additional outlay, it was decided at the earliest possible moment to remodel a portion of the property and transfer THE JOURNAL plant. Every detail with respect to title in the building and legal transfer to the Association was discussed and arranged for. All these matters will be fully set forth in the annual report of the Board of Trustees at the Saratoga meeting.

The Transportation Committee reported progress, and that their special aim was to secure a one-fare rate for the round trip with a time extension and the abolition of the annoying 50-cent fee which was inflicted upon the members of the Association at the St. Paul meeting. The annual report of the Board of Trustees was read and approved and ordered to be presented at the next meeting of the Association.

The propriety and advisability of the American Medical Association adopting a designating flag to be known as the flag of the American Medical Association, which shall fly over the headquarters of the American Medical Association at their annual meetings, was discussed, and the Secretary of the Board was requested to bring the matter up before the Association at the next meeting. After considering a number of minor matters and details, the Board adjourned to meet with the Association at Saratoga.

H. L. E. JOHNSON, M.D.,
Secretary Board of Trustees.

Societies.

COMING MEETINGS.

American Association of Pathologists and Bacteriologists, Cleveland, O., March 28-29, 1902.
Medical Association of the District of Columbia, Washington, April 1, 1902.
Tri-State Medical Society of Iowa, Illinois and Missouri, Chicago, April 3-4, 1902.
Tennessee State Medical Society, Memphis, April 8, 1902.
Florida Medical Association, Tampa, April 9, 1902.
Western Ophthalmological and Oto-Laryngological Association Chicago, April 10-12, 1902.
Medical Association of the State of Alabama, Birmingham, April 15, 1902.
Medical Society of the State of California, San Francisco, April 15-17, 1902.
Medical Association of Georgia, Savannah, April 16, 1902.
Mississippi State Medical Association, Jackson, April 16, 1902.
South Carolina Medical Association, Spartanburg, April 16-17, 1902.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 22, 1902.
Association of American Physicians, Washington, D. C., April 29-30, 1902.
American Association of Genito-Urinary Surgeons, Atlantic City, N. J., April 30, 1902.
International Association of Railway Surgeons, St. Louis, Mo., April 30 and May 1 and 2, 1902.
American Gastro-Enterological Association, Washington, D. C., May 2, 1902.
Nebraska State Medical Society, Omaha, May 6-8, 1902.
Texas State Medical Association, Dallas, May 6-9, 1902.
Kansas Medical Society, Lawrence, May 7-9, 1902.
American Therapeutic Society, New York City, May 13, 1902.
Utah State Medical Society, Salt Lake City, May 13-14, 1902.
New Mexico Medical Society, Albuquerque, May 14, 1902.
Oklahoma Territory Medical Association, Oklahoma City, May 14, 1902.
Arkansas Medical Society, Little Rock, May 14-16, 1902.
New Hampshire Medical Society, Concord, May 15-16, 1902.

Hennepin County (Minn.) Medical Society.—The first annual banquet of this Society was held in Minneapolis, March 3. Dr. Henry L. Staples was toastmaster and Drs. James B. Herrick and A. J. Ochsner of Chicago were the guests of honor.

Somerville (Mass.) Medical Society.—The annual election of officers and banquet of this Society were held, March 6. Dr. George A. Miles was re-elected president; Dr. Frederick G. Smith elected vice-president, and Dr. Arthur R. Perry, secretary and treasurer.

Hardeman County (Tenn.) Medical Association.—The physicians of Hardeman County met at Bolivar, March 5, and organized a county medical association, with Dr. John P. Douglass, president; Dr. Hugh W. Tate, vice-president, and Dr. Robert W. Tate, secretary, all of Bolivar.

Tri-State Medical Society of Iowa, Illinois and Missouri.—The tenth annual meeting of this Society will be held at Chicago, April 3 and 4, under the presidency of Dr. John C. Murphy, St. Louis. Dr. William B. LaForce, Ottumwa, is secretary, and Dr. Emil Ries, Chicago, chairman of the Committee of Arrangements.

Floyd County (Ind.) Medical Society.—This Society held its annual meeting at New Albany, March 6, at which Dr. Francis A. Mitchell was elected president; Dr. Edwin L. Sigmond, vice-president, and Dr. Charles P. Cook, secretary and treasurer, all of New Albany. The Society resolved to give a banquet to the members of the Country Practitioners' Society at the large room in St. Edwards' Hospital set apart for the use of the physicians. The banquet will be given May 3, and the Society has appropriated $100 to meet the expenses of the entertainment.

American Association of Urologists.—This Association was organized, February 22, essentially for the purpose of further development of the study of the urinary organs and their diseases. Gynecologists who embrace renal and vesical surgery in their work are among the founders, as there are several gentlemen who devote themselves to the microscopy and chemistry of the urine, as well as a number of practitioners interested in the study of the kidney from a medical standpoint. The Association consists of active, corresponding and honorary members, and is in great measure modeled upon the plan of the Société Française d'Urologie, modified to suit American circumstances and conditions. Thus, whenever possible, the branch associations will hold their meetings on the same evenings as does the parent association in New York—the first Wednesday in each month. The work of the Association is principally clinical, for the demonstration of new methods of the technique of examination and treatment. The annual meeting of the Association will be held on the last day and the day following the annual meeting of the American Medical Association. The officers of the Association are: Dr. Ramón Guiteras, New York, president; Dr. William K. Otis, New York, vice-president; Dr. John Vanderpoel, New York, treasurer; Dr. Ferdinand C. Valentine, New York, secretary, and Dr. Austin D. Mabie, New York, assistant secretary.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Regular Meeting, held Feb. 26, 1902.

The President, Dr. T. H. Fenton, in the Chair.

Symposium on Cholecystitis.

DR. J. MCFARLAND, in a paper on "Pathology of Cholecystitis," stated that the gall-bladder may be congenitally absent without special disadvantage. The routes of infection of the bladder are through the blood vessels or lymphatics or from the intestine. The most common is the latter, through the duct. The bile becomes viscid and ropy, the duct perhaps becoming partially or wholly occluded. The gall-bladder is distended and swollen, ulceration, abscess formation and perforation sometimes resulting. Recovery or chronicity may occur, if the latter the bladder will be found fibrous and contracted. One great cause of cholecystitis is cholelithiasis. The cause of the latter is not definitely known. Epithelial cells or bacteria perhaps serve as nuclei for the deposit of the bile salts.

DR. JOSEPH SAILER read a paper on "Etiology and Diagnosis of Cholecystitis." The healthy gall-bladder is uninfected. The bile is not bactericidal, but does not supply much food for bacteria. The most favorable disease for the development of cholecystitis is typhoid fever. Quotations from several investigators were given to substantiate the latter view. In six cases with a history of typhoid fever, the author had found the typhoid germ present in the gall-bladder, and in one case cultures were grown from bile three months after it had been obtained from an autopsy. The typhoid bacillus had been found in gall-stones. Diagnosis is sometimes difficult and may escape attention. In appendicitis, laparotomy has taken the place of autopsy. Cholecystitis is, however, comparatively rare. If catarrhal jaundice be present the symptoms may be plain. The speaker cited the local symptoms, the conditions to be sought for by physical examination and recounted the general symptoms. Of the later are chill, fever of a hectic type simulating malaria, prostration and delirium. There may be an antecedent history of typhoid fever. The speaker referred to a case seen by him and Dr. Musser. The patient, a woman of 50, jaundiced, stools clay colored, anemic, had an elastic palpable mass below the ribs on the right side. Patient experienced a sensation of a sudden giving way in the abdomen. At the autopsy, three days later, the peritoneal cavity was stained with bile, and the gall-bladder was found with a small tear in the fundus. The common duct had a ball valve obstruction.

DR. J. CHALMERS DA COSTA discussed the subject of "Surgical Diagnosis and Treatment of Cholecystitis." He said that the causes may be one or many genus, the character of the lesion depending upon the virulence of the infection and the resistance of the tissues. Chronic cholecystitis is usually without jaundice and the attacks may not be distinguished from gall-stones. The speaker recently operated upon a case supposed to be one of the latter. Curettage of the mucous membrane and maintenance of drainage for a time effected a cure. In another case gall-stones were found in the feces, but operation showed that the bladder had emptied itself of stones. Jaundice is rare in cases free from stones. The passage of plugs of mucus may simulate that of stones, but is less severe, and there is absence of tenderness over the gall-bladder. Some cases where doubt exists demand incision and drainage for a week or more. Croupous cholecystitis is rare, and the symptoms are identical with those of gall-stones. Simple empyema, acute, phlegmonous, suppurative and cholangitis with perforation are various forms of the affection.

The latter strongly simulates acute appendicitis, and in each, surgical interference is life-saving. An enlarged gall-bladder may be mistaken for a movable kidney. The directions given by Henry Morris were cited: "The gall-bladder is commonly a

movable abdominal tumor; attacks of jaundice probably occur; the bladder is palpated at the edge of the liver, the presence of stones at times giving the sensation of hardness; the bladder is movable only in a circle and not downward toward the pelvis. The kidney tends to stay in the loin when put there." The greatest care will sometimes fail to distinguish cholecystitis from appendicitis.

DR. S. SOLIS-COHEN, in a paper on "Medical Treatment of Cholecystitis," said that there is no one medical treatment. There is often difficulty in diagnosis. I have never seen a case of isolated cholecystitis. There are always other associated inflammations of the stomach or intestines. For the gastro-duodenal catarrh, lavage is useful. Calomel, sodium phospate or sulphate is often useful. Rest, regulation of the diet, mild laxatives and mercurials are common and are good measures. Sodium succinate, first recommended to me by Dr. Ellwood Wilson, 5 grains four or five times daily, I have often found excellent. Bile preparations are sometimes used with apparently good results. Foreign physicians rely much upon the spa treatment. The artificial salts of alkaline waters are easily prepared. Hydrotherapeutic measures and massage stimulate increased bile secretion and bodily functions and prevent complications.

DR. J. C. WILSON said in discussion: There are two states of inflammation, one a result of stones, the other independent of stones. The conditions may overlap. The conditions can, at times, scarcely be clinically differentiated. In my own experience I have recognized three common conditions, catarrhal cholecystitis, and thickening with or without adhesions accompanied with contractions. The first form I have recognized as a complication of enteric fever in a considerable proportion of the relapses of the latter. It is very frequent in enteric fever, recovery usually being prompt. Whether the disease is or is not accompanied by jaundice or stones, in cases of repeated colic, early surgical operation should be done.

DR. JOHN H. MUSSER believes that all forms of cholecystitis are infective, very frequently associated with stones. Contrary to the common experience, he has found, in the Philadelphia Hospital, more men than women affected with gall-stones. The speaker had seen three cases of cholecystitis associated with typhoid fever, and had perhaps overlooked many not suggested by local signs. Pneumococcus infection of the gall-bladder occurs conjointly with infection of the lungs. There is greater difficulty in distinguishing cholecystitis from pancreatitis than from any other disease. The etiology and the physical signs posteriorly are strong factors in diagnosis. A case of pancreatitis operated upon recently had effusion into the lesser peritoneal cavity.

DR. ERNEST LAPLACE holds that each case is one to itself according to what special germ causes the infection. Future work should be in the direction of finding the specific cause in each case. It is only about the gall-bladder and vermiform appendix that the methods of preantiseptic surgery exist. The day is not far distant when a frank attack of gall-stone colic will lead to operation.

DR. G. G. DAVIS said that in cholecystitis we should expect to find an enlargement of a sausage-like shape extending directly downward with tenderness at McBurney's point, but dulness reaching to the liver's edge. The surgical treatment now is where that of appendicitis was a few years ago. The profession is yet to be taught the seriousness of these affections. Usually there is greater danger in adopting a conservative course. In jaundice, hemorrhage being a great danger only a mild operation providing for drainage should be done.

DR. JUDSON DALAND called attention to the fact that stones often exist without symptoms; also to the danger of hemorrhage and to the failure of wounds to heal where jaundice is present.

DR. JOHN B. DEAVER believes that the surgeon should early claim these cases, and believes in the propriety of early operation, as much so as early operation in appendicitis. In operating he rarely leaves a gall-bladder. He thinks that no one can differentiate cholecystitis from appendicitis in every case.

DR. WM. E. HUGHES holds that if there is a history of gall-stones the case should be referred to a surgeon. If, however, the case be one of simple cystitis it is not a surgical disease. He has treated several of the latter cases and all have recovered. The fact was pointed out that pleurisy or congestion of the right lower lobe of the liver may be mistaken for cholecystitis.

NEW YORK ACADEMY OF MEDICINE.

Regular Meeting, Held Feb. 20, 1902.

Vice-President, Dr. Charles L. Dana, in the Chair.

Symposium on Vaccination.

Although this evening's discussion was styled a symposium on vaccination, it was rather a discussion on vaccine. It was opened with an introductory paper by Dr. Alonzo Blauvelt, Chief Inspector of the Division of Contagious Diseases of the Health Department, who described "The Action Taken by the Health Department on Report of a Case of Smallpox." He said that immediately upon receipt of the notification, a diagnostician of the department and a policeman proceeded to the address given and if the case was thought to be one of smallpox the patient was conveyed to the Riverside Hospital in a coupé or ambulance used specially for this work. Instructions were left at the house for the disinfector and the health department vaccinator offered vaccination to all in the house. The children in the house were not allowed to attend school for three weeks, but the adults attended to their occupations as usual.

DR. M. J. ROSENAU, Director of the Hygienic Laboratory of the Marine-Hospital Service, read a paper upon "Dry Points Versus Glycerinated Virus from a Bacteriological Standpoint." He said that diluted glycerin was a favorable culture medium for bacteria, and in greater concentration it was not a true bactericide, killing bacteria only by a very slow process of dehydration. Moreover, glycerin gradually destroys the potency of vaccine. Dr. Rosenau then described a series of bacteriological experiments undertaken with a view to instituting scientific comparisons between glycerinated vaccine virus and dry vaccine points as regards the number of bacteria present. The material for the investigation consisted of 92 samples of vaccine obtained in the open market, representing the products of eight manufacturers. The 41 dry points gave an average of 4807 colonies per point and the 51 samples of glycerinated virus gave an average of 2865 colonies per tube. The figures presented were remarkable in that they showed an enormous number of bacteria in the glycerinated virus as compared with the dry points. The author endeavored to explain this result partly by the great variations in the quantity of vaccine contained in the samples of glycerinated lymph and also by the supposition that many of the makers of glycerinated virus placed their products on the market while yet too "green." He added that much of the contamination observed was unnecessary and was probably the result of the over-confidence in glycerin as a preservative. This investigation seemed to Dr. Rosenau as pointing clearly to the desirability of government control of vaccine production.

DR. F. S. FIELDER presented a carefully prepared report of tests that he had made to compare the value of the dry point with that of glycerinated vaccine virus. The glycerinated virus manufactured by the New York City health department was used in the tests and this was compared with ivory points made by eight different private manufacturers and with dry points prepared by the health department. The last mentioned were divided into lots: those points charged with serum exuding after having curetted away the pulp used in the manufacture of glycerinated virus and those charged with the serum obtained after simply removing the top of the vesicle. It was stated that no great difference was observed in the action of these two lots of dry points. Of the health department dry points 25 per cent. were successful, while 60 per cent. of the insertions made with the dry points of private manufacturers proved successful. On the other hand, nearly 93 per cent. of the insertions made with the glycerinated virus were

successful. Severer constitutional symptoms were observed with the glycerinated virus, but this the author attributed to the use of "green" virus in all the experiments. Very few eruptions were noticed and these were mild, ephemeral and chiefly of an urticarial type. It was also noted that 78 per cent. of the cases successfully vaccinated with the health department dry points healed promptly and 8.8 per cent. healed slowly, while of those done with the glycerinated virus, 66 per cent. healed promptly and 17.2 per cent. slowly. The speaker said that he was not prepared to state how long the dry points would retain their potency, but he had ascertained that the glycerinated virus of the health department would yield 100 per cent. of successes after having been kept for nearly eight months.

DR. JOHN H. HUDDLESTON read a paper upon "Tetanus and Vaccine Virus." By bacteriological experiments on the feces of twenty-five calves fed on hay he had demonstrated the presence of tetanus germs in only two instances. His experiments also showed that glycerin exerted a distinctly inhibitory influence on the tetanus germs and that cultural tests were more delicate than animal inoculations in detecting the presence of tetanus. His conclusions were as follows: 1, The feces of calves fed on hay may contain tetanus germs; 2, these germs do not develop with glycerinated virus; 3, any form of vaccine virus—dry points or tubes of glycerinated virus—may be infected with tetanus and may convey it, but no form of vaccine increases the amount; 4, cultural tests for the presence of tetanus germs are somewhat more delicate than animal tests; 5, inoculation by scarification is not a favorable method of introducing tetanus; 6, it is probable that the greatest precaution against the production of infected vaccine virus lies in the maximum of cleanliness observed in a vaccine laboratory.

DR. FRANK P. FOSTER said that it was evident from the remarkable figures presented by Dr. Rosenau that there is a good deal of glycerinated vaccine on the market which does not possess the properties which should belong to good virus of this form. It was also evident that the dry points used by Dr. Fielder were very poor. Dr. Foster said that his experience in the past in the manufacture of vaccine had taught him that better virus was obtained from calves of six or eight months than from younger calves. Good dry points should certainly retain their potency for seven or eight months—indeed, if not merely dried but desiccated, it might be preserved much longer. If the term "pulp" was used to designate the whitish pulpy layer found beneath the epidermal portion of the pock, he would say that he had always been of the opinion that this was abnormal and should not be used for the manufacture of vaccine, inasmuch as it was made up of the necrosed tips of the papillæ of the derma.

DR. J. J. KINYOUN, of the U. S. Marine-Hospital Service, said that from experiments that he had made in the laboratory on methods of collecting lymph, he had found that the first part was quite rich in vaccinal material and the last portion comparatively weak. This might explain some of the differences in potency observed in dry points of different manufacture. It had been found very difficult to preserve the glycerinated virus for any length of time in the Philippines, so that it became necessary to use the lymph while still green. As a result, there were very many sore arms.

DR. HUDDLESTON said that the great variations observed in the number of bacteria found by Dr. Rosenau in glycerinated virus was to be explained in part by the fact that it was practically impossible to make a thoroughly homogeneous vaccine emulsion, so that some samples would contain more vaccine particles, and perhaps more bacteria, than others. There must be some solid matter in all good vaccine, for, it had been shown that if the virus were passed through a filter which would remove all solid particles, the filtrate was wholly inert. The white pasty matter referred to by Dr. Foster was curetted out and used in the manufacture of glycerinated virus. Both dry points and glycerinated lymph had been known to retain their potency for two years or more, but while this was interesting from a scientific point of view, it did not indicate at all the practical life of the vaccine. He was of the opinion that there was a decided difference in the quality of the vaccine obtained from the cow and from the calf, because the curetting could hardly be done so thoroughly in the older animal.

DR. ROSENAU said that it should not be forgotten that all dry vaccine points are not manufactured in the same way. Some manufacturers charge the points with the serum exuding from the old cross-hatch scarifications, while others mix the lymph with glycerin, set it aside for some weeks and then mix it with normal blood serum and allow it to dry on the bone points. As vaccinia was an epithelial infection, the glycerinated pulp, containing as it does the epithelial layer, should contain the maximum of vaccinal bodies.

CHICAGO NEUROLOGICAL SOCIETY.

Regular Meeting, held March 6, 1902.

President, Dr. Daniel R. Brower, in the Chair.

Hysteria.

DR. ELBERT WING reported the case of Miss H., aged 15, who complained of a constant ache in all of the teeth of the upper jaw, accompanied by tenderness, both the aching and tenderness being greatest on the right side. The pain is described as a dull, heavy ache, rather than sharp or lancinating, varies somewhat in severity and is present all of her waking hours. The tenderness is not great and not uniform in all of the teeth. The pain is influenced somewhat by cold, but not at all by heat. It is not increased by the acts of talking or eating. In May, 1901, the patient had an attack similar to this, in which the teeth of the lower jaw were involved. It began in a few of the teeth on the left side. Her dentist, drilled into these, destroyed the pulps and filled the root canals. This did not stop the pain and finally the affected teeth were extracted. This treatment, with variations, ran the circuit of the lower jaw, until all of its teeth were extracted and a plate of artificial teeth put in. About six weeks after the teeth were all extracted, the pain, diminishing gradually, ceased. Six weeks later, the pain began in the teeth of the right side of the upper jaw and had continued until this examination was made, Dec. 21, 1901. The dentist did not excavate or extract the upper teeth.

Three years ago the patient had what she described as "soreness in her scalp," which was not relieved until her hair was cut short. Then she had some trouble with her eyes, not inflammatory, in which she says she almost lost her sight. Later she had attacks of spasms. She says that one doctor stuck pins in her and said that there was nothing the matter with her. She has had no other illness and menstruation is fully established, regular and normal in every way. Patient's father has had "nervous trouble," is now well, and the family history is otherwise negative.

Examination shows a young woman, 5 feet 8 inches tall, large in proportion, in excellent general nutrition and full mammary development. Appetite good; no symptoms of indigestion; bowels act normally and sleep is good, except when disturbed by the pain in the teeth. Loss of sleep from this cause, she says, is considerable. Patient's appearance is that of excellent health. When alone with the examiner, the patient's manner was quiet and free from peculiarity, except lounging in her chair, but when her dentist, who seemed familiarly acquainted, was present, her manner was petulant and capricious. The thoracic and abdominal organs were normal.

Voluntary motor power was normal and symmetric. Tests for touch and pain were made with a camel's hair brush and common pins. Sensation to touch was slightly less throughout the left side. On this side there were areas of moderate size of diminished sensation over the upper half of the chest, the hypochondriac region, the outer and middle third of the thigh and two places on the leg. There was absence of pain to the prick of a pin over and just above the left breast and there was diminished pain sense in the areas partially anesthetic to touch and slight anesthesia over left scapula. Epigastric reflex was slightly less on left side; abdominal walls were symmetric; elbow-jerks were absent; knee-jerks present and fairly symmetric. The pupils react normally and vesical and

rectal control reported normal. There was moderate tenderness in the upper teeth, more pronounced on the right side, and some in the upper branch of the fifth nerve of the right side. There was no other tenderness. Physical examination was not carried further. The patient was referred to her home physician with the diagnosis of hysteria and the usual suggestions outlined for treatment.

DR. SYDNEY KUH recalled the case of a girl who presented herself at Czerny's clinic in Heidelberg, with the statement that she had swallowed a pin. She had considerable pain; her stomach was opened and a pin was found in the wall of the stomach. Patient returned subsequently two or three times, wanting to undergo another operation. The suspicion of the surgeon was aroused; he refused to operate a second time, as he was firmly convinced there were no more pins in the stomach. Dr. Kuh also detailed a case of hysteric deception which occurred in the practice of a country doctor. A girl claimed that she had swallowed a snake; that she could feel it moving about in the abdomen and insisted that something be done for its removal. Little attention was paid to her until one day they found her in front of the house apparently very ill. She had vomited and in the vomit there was a snake-like body, which turned out to be the gut of some animal.

DR. DANIEL R. BROWER mentioned a case which occurred in the practice of Dr. Fitch many years ago. It was stated that the woman's urinary secretion had been entirely suppressed, and that she was secreting urine by the gastric mucous membrane. He was called in consultation in this case. Dr. Fitch had the contents of the woman's stomach examined a number of times and always found urine present. Dr. Brower suggested that she be put to bed and some responsible person directed to watch her. This was done and it was found that the woman would urinate and then swallow the urine.

DR. LODOR mentioned a patient who had some of her teeth extracted on account of a supposedly distressing condition of them. She exhibited the usual stigmata of hysteria. She was referred to him with the recommendation that the dental nerve be trephined for excessive pain; but on examination he found nothing wrong with the patient's mouth and said the case was purely hysterical.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Local Treatment of Leucorrhea.

The following is recommended by Lutand, to be used locally in treatment of leucorrhea:

℞.	Pot. chloratis	ʒiss	45
	Tinct. opii	ʒi	31
	Aq. picis liq.	O. ii	596

M. Sig.: One-half a glass to be used in a quart of water as a douche night and morning.

Thrombosis of Femoral Vein in Typhoid Fever.

J. M. Anders, in *Med. News*, recommends the following ointment to be applied along the course of vessels:

℞.	Unguenti ichthyol (10 per cent.)		
	Adipis lanæ hydrosi, ää	ʒii	7 50
	Ung. belladonnæ	ʒss	15

M. Sig.: Apply locally three or four times a day over the course of the vein.

The Treatment of Fever.

Ernest Jendrassik, in *Ther. Month.*, states that cold bathing in fevers, by abstracting a certain number of calories which immediately have to be replaced, causes overwork of the system, exaggerated combustion, which means a considerable loss of substance and rapid return of the fever; in many ways it resembles the old-fashioned bleeding. According to his statement it is sedative, refreshing, tonic and hygienic, but not antipyretic.

He regards phenacetin as the best in high fevers, especially in children, but occasionally it will have to be replaced by antipyrin. One to one and a half drams should be given at one dose. The action will last about six hours, and when the temperature begins to rise again the dose should be repeated and thus four doses may have to be given in the twenty-four hours. He believes that insufficient dosage is responsible for the lack of results of the employment of these agents.

[If the author is correctly quoted he certainly is advising practitioners to tread upon dangerous ground in giving a dram and a half of phenacetin at one dose.]

Treatment of Influenza.

The following formulæ are noted in *New York Med. Jour.*, in the treatment of the different organs involved in influenza:

To disinfect the ears:

℞.	Hydrarg. chloridi corros.	gr. i	06
	Alcoholis	ʒiss	5 60
	Aq. destil.	ʒii	62
	Glycerin	ʒiv	124

M. Sig.: Instill a few drops into the ear three times a day.

For the nose:

℞.	Menthol	gr. iii	20
	Olei petrolati	ʒss	16

M. Sig.: Instill a few drops into the nose three times daily.

For the throat:

℞.	Alcoholis	ʒss	16
	Resorcin	gr. x	66
	Salol	gr. viiss	50
	Aq. q. s. ad	O. ss	248

M. Sig.: To be used frequently as a gargle; or:

℞.	Acidi salicylici	gr. v	30
	Spts. menthæ pip. q. s. ad solutionem.		
	Aquæ q. s. ad	O. ss	248

M. Sig.: As a gargle.

To disinfect the room:

℞.	Acidi carbol.		
	Acidi salicylici, ää	gr. lxxv	5
	Menthol	gr. xxx	2
	Alcohol	ʒviii	248
	Tinct. eucalypti	ʒi	3 75

M. Two to four tablespoonfuls in 16 ounces of water, to be evaporated in the room.

Enlarged Spleen in Chronic Malaria.

Lyon, in *Le Prog. Médical*, recommends the following local and general treatment of enlarged spleen in malaria:

℞.	Iodoformi	gr. xlv	3
	Ext. belladonnæ	ʒi	3 75
	Ol. menth. pip.	gtt. xx	1 33
	Adipis lanæ	ʒii	60

M. Ft. Ung. Sig.: Apply locally twice a day with friction.

For the general condition the following:

℞.	Acidi arsenosi	gr. 1/100	0006
	Iodoformi	gr. i	06
	Ferri et potass. tart.	gr. i	06
	Ext. belladonnæ	gr. ss	03
	Quininæ sulph.	gr. 1/3	02
	Ext. nucis vom.	gr. 1/6	01
	Ext. valerianæ	gr. i	06

M. Ft. pil. No. i. Sig.: Take two such pills at noon and two at night before meals.

Diarrhea in Tuberculosis.

According to the *Pac. Med. Jour.*, the following is of great service in checking the diarrhea in tuberculosis:

℞.	Ichthoformi	gr. v	33
	Tannalbin		
	Bismuthi subgal., ää	gr. x	66
	Codeinæ sulph.	gr. 1/4	015
	Olei menth. pip.	m. 1/4	015

M. Ft. chartula No. i. Sig.: One such powder every two to six hours.

Chalazion (Retention Cyst).

In the treatment of a cyst of the lid where the Meibomian gland is occluded, which may also be caused by errors of refrac-

tion, he recommends that the tumor be evacuated from the conjunctival surface of the lid, first anesthetizing the parts with the following:

℞. Cocainæ hydrochlor. ..... gr. xviii | 1.20
Acidi borici ..... gr. x | .66
Aq. destil. q. s. ad ..... ℥i | 31

M. Sig.: Use as a local anesthetic.

To Diminish Severity of Convulsion in Epilepsy.

The following is recommended by Yeo to lessen the frequency and severity of the convulsions in epilepsy:

℞. Morphinæ sulphatis ..... gr. iss | .09
Tinct. veratri viridis ..... ℥ss | 15
Aquæ q. s. ad ..... ℥ss | 15

M. Sig.: Inject 20 minims hypodermically during or before a convulsion.

The following containing sodium borate is sometimes of service in treatment of epilepsy:

℞. Sodii boratis ..... ℥iii | 11.25
Glycerini ..... ℥i | 31
Aquæ q. s. ad ..... ℥iii | 93

M. Ft. mistura (dissolve the sodium borate in warm glycerin). A teaspoonful to a dessertspoonful three times a day.

Chronic Emphysematous Bronchitis in Children.

The following is frequently used, according to *Amer. Med.*, in treatment of the above form of bronchitis in children:

℞. Arseni iodidi ..... gr. ivss | .29
Aq. destil. ..... ℥iss | 46.50

M. Sig.: Begin with 5 drops in water, wine, or milk twice a day after meals, to be increased morning and evening until 10 to 20 drops have been added, according to the age and tolerance of the patient. The maximum dose should be retained for one month and then gradually decreased until 5 drops are taken.

Sodium Persulphate in Tetanus.

Gelibert, as stated in *Can. Pract. and Rev.*, gives account of numerous experiments with injections of sodium persulphate in tetanus. It was found that injections in animals of poisonous doses of tetanus toxin were antidoted if followed at once by a subcutaneous injection of sodium persulphate. The fresh and pure salt was used. These results were not obtained if some minutes elapsed between the injections. The use of the soda preparation, however, has an invariably favorable action on the tetanic contractions. The author gives the history of two cases of tetanus developing in children which were treated by the soda injections and recovery occurred in each instance, although the cases were serious. He injected 10 cubic centimeters of a 5 per cent. solution three or four times daily.

[The experiments as carried out by him on animals, showing that the antidote must be given within a few minutes after the introduction of the tetanus toxin, would certainly not prove its efficiency in counteracting tetanus in man, for the reason that the period of seven to fifteen days may elapse before tetanus, following an injury, develops.]

Otorrhea.

The following has been used with success in treatment of otorrhea:

℞. Ferri perchloridi ..... ℥ss | 1.90
Alcoholis
Aq. destil. āā ..... ℥i | 3.90

M. Sig.: Three or four drops to be instilled into the external auditory canal two or three times a day.

Medicolegal.

Liability for Refusal of Admission to Hospital.—The Court of Appeals of Kentucky says, in Illinois Central Railroad Company vs. Gheen, that it appeared that each employe on a certain division of the road, who was employed as much as four days in a month, contributed to the maintenance and support of a hospital. The sum payable was fixed according to the wages earned per month, the amount payable being withheld by the paymaster and turned into the hospital fund held by the company's treasurer. The hospital association was not incorporated, but it had a board of directors who were such, save two, by reason of the official position with the road. The surgeon in charge was practically appointed by the company's chief surgeon. The men who contributed the monthly assessment to pay the hospital expenses had, in fact, no voice in the management or control of the hospital, save and except that of giving certificates of admission thereto to subordinate employes when sick or injured. These facts, the court holds, would have authorized the peremptory instruction of the jury in this case that if the employe who instituted this action had been engaged more than four days he was entitled to admission into the hospital, and if he was refused permission to enter, or certificate entitling him to transportation and entrance to the hospital, and was injured by such refusal, he was entitled to recover damages. But where he was employed in one county, and in that county refused by his foreman a certificate entitling him to admission into the hospital, the road running through that county and there being a chief officer and agent of the company, to-wit, a division superintendent, resident therein, the court holds that the cause of action accrued wholly in that county, giving the Circuit Court thereof jurisdiction of the cause, although the hospital was in another county. Then, it says that the general and universal rule of law in regard to damages is that every person must do all that can reasonably be done to render the damage for any act or omission as light as possible. Under this rule, this employe, when he was refused admission to the hospital, if such was the case, was bound to keep the consequent injury and damage as light as possible. To do so, he should have employed medical and surgical attention to cure his hand, or, at least, to arrest other or further injury. For such services and attention, or the cost thereof, the company, if liable at all, would be required to pay. But the proof was that he failed to use all means to prevent further injury to himself, contenting himself to accept the services and treatment of the company's local surgeon, who seemed to have pursued the same treatment given at the hospital. Yet, if that surgeon was unable, for any reason, to give him proper and necessary treatment to his wounds, it was his duty to procure elsewhere such attention. If he failed to do so, he could not charge the company with the consequent loss, suffering, or injury he received by his own failure to procure medical and surgical attention. But he could recover the reasonable cost of such medical and surgical attention that would have equaled that which he would have received at the hospital if he had been admitted. He was entitled, if at all, to the skilled surgical attention he would have received at the hospital, including board, transportation, and such accommodations and charges that the hospital would furnish its patients. If the company refused to furnish such, and was bound to do so, he could and should have sought such attention elsewhere, and for the reasonable cost thereof the company would be liable. The hospital was to furnish medical and surgical attention, and to nurse and care for the patient who was admitted therein. If the company was liable under the proof, its liability was for failure to furnish these things, and the damage for such failure was the reasonable cost at which such care and attention, board, and medical and surgical skill could have been obtained, as well as cost of transportation to the nearest suitable place where such attention could be had.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record (N. Y.), March 8.

1 *The Treatment of Malignant Growths by the X-Ray, with a Provisional Report on Cases under Treatment. William J. Morton.
2 *Regarding the Infectious Agent of Yellow Fever; a Reply to Dr. Souchon. Alvah H. Doty.
3 *Pneumonia in the Light of Modern Research. Stephen S. Burt.
4 *Diabetic Coma; Symptoms, Pathology and Treatment. Abraham Mayer.

5 *A New Test for Albumin. Flora C. Fuhs.
6 A Severe Case of Diphtheria, Involving the Pharynx, Larynx, Trachea, Bronchi and Probably the Esophagus and Stomach. J. D. MacPherson.
7 Hypertrophic and Atrophic Cirrhosis of the Liver. John A. Mitchell.
8 Report of a Successful Case of Gastrostomy in an Infant. John T. Howell.

New York Medical Journal, March 8.

9 Nevus Verrucosus Associated with Certain Anomalies of Pigment. H. Taylor.
10 *Again the Rectal Valve and Obstipation. Thomas C. Martin.
11 The Care of Incurable Cases of Chronic Pulmonary Tuberculosis. Henry L. Shiveiy.
12 *The Civilized Indian, His Physical Characteristics and Some of His Diseases. A. D. Lake.
13 The Sideroscope. Thomas R. Pooley.
14 *The Severing of the Vasa Deferentia and Its Relation to the Neuropsychopathic Constitution. H. C. Sharp.
15 On Gonorrheal Arthritis. A. Herzfeld.
16 The Treatment of Habitual Constipation. W. L. Callaway.
17 A Case of Acute Anterior Poliomyelitis; Recovery. David Davidson.

Philadelphia Medical Journal, March 8.

18 *A Study of the Cases of Accidental X-Ray Burns Hitherto Recorded. (To be concluded.) E. A. Codman.
19 *An Outbreak of Chicken-pox Among Children Convalescent from Smallpox, with Remarks upon the Relationship of These Two Diseases. J. F. Schamberg.
20 Microchemical Reactions of Tube Casts. W. M. L. Coplin.
21 *The Identification of the Colon Bacillus by Reactions Produced in Culture Media Containing Neutral Red—Observations on Reactions of Other Bacteria on the Same Media. Randle C. Rosenberger.
22 Intestinal Obstruction Caused by Cicatricial Band Compressing the Ileum. John G. Sheldon.
23 *The Progress of Knowledge Concerning Venom and Antivenene; a Synoptical Review of the Literature of the Past Fifteen Years. (Continued.) Joseph McFarland.

American Medicine (Philadelphia), March 8.

24 *Concerning the Hypnotic Action of Apomorphin Hydrochlorate in Alcoholism. Warren Coleman and John M. Polk.
25 Clinical Report of Two Cases of Osteosarcoma of the Inferior Maxillary Treated by Incisions; Report of the Condition of the Patients After One Year. Hermann B. Gessner.
26 *Proteosuria. H. O. Mosenthal and William J. Gies.
27 Tubercular Pericarditis with Effusion; Repeated Tappings; Bacilli in the Exudate; Recovery. Florence R. Sabin.
28 *Sprue or Psilosis in Manila. William E. Musgrave.
29 Old Compound Depressed Fracture of Frontal Bone Involving the Frontal Sinuses. (To be concluded.) G. Childs MacDonald.
30 The Responsibility of the General Practitioner in Diseases of the Nose and Throat. Justus Sinexon.
31 The Dangers to the Public Health and Morals, Especially to Young Persons, from Quackery as Promulgated by Public Advertisements. Will B. Davis.

Cincinnati Lancet-Clinic, March 8.

32 *The Treatment of Infected Wounds of the Hand. Horace J. Whitacre.
33 Hygeia, or the Goddess of Health. Brose S. Horne.

St. Louis Medical Review, March 8.

34 Umbilical Hernia; Mayo's Operation—A Clinical Lecture. N. B. Carson.

Medical News (N. Y.), March 8.

35 *The Craig Colony Prize Essay—Serotherapy in Epilepsy. Carlo Cent.
36 *One Way to Fight Contagion. Charles V. Chapin.
37 A New Cystoscope for the Simultaneous Catheterization of Both Ureters and for Double Current Irrigation of the Bladder. Frederic Bierhoff.
38 Congenital Dextrocardia. Wm. Edgar Darnall.
39 Somnolence and Loss of Memory Resulting from Cholesteatoma of the Middle Ear. Francis R. Packard.
40 *Urticaria of the Upper Respiratory Tract. Lewis S. Somers.

Boston Medical and Surgical Journal, March 6.

41 *A Case of Severe and Threatening Hematuria from Movable Kidney, with a Discussion of the Causation of This Condition. Arthur T. Cabot.
42 Report of Two Cases Operated on for Deformity of the Nose. J. Payson Clark.
43 *Contribution to the Study of Spinal Fracture, with Special Reference to the Question of Operative Interference. G. L. Walton.
44 Adenocarcinoma of Liver; Perforation of Stomach; Death; Autopsy. Charles S. Walker.
45 Epidemic Pneumonia at West Townsend, Mass. R. S. Ely.

Northwestern Lancet (Minneapolis), March 1.

46 The Time to Operate in Appendicitis, with Discussion. J. Warren Little.
47 Ante-partum Diagnosis. Soren P. Rees.
48 Hay-Fever: A Reply. Floyd S. Muckey.

Medical Fortnightly (St. Louis), February 25.

49 The Treatment of Pernicious Vomiting of Pregnancy. Everett J. Brown.
50 Hygienic and Medicinal Treatment of the Pernicious Vomiting of Pregnancy. Arthur H. Flickwir.
51 Vaccination. John W. Hairgrove.
52 *The Necessity of, and Indications for, the Bed Treatment of the Insane. Frank P. Norbury.

Virginia Medical Semi-Monthly (Richmond), February 21.

53 Emmenagogues, Their Indications and Uses. J. Wesley Bovée.
54 Prophylaxis and Treatment of Puerperal Sepsis. Edward McGuire.
55 The Clinician and the Hematologist. B. M. Randolph, Jr.
56 Treatment of Fracture of the Humerus without the Use of Coaptation Splints. C. F. Rinker.
57 Sporadic Trichiniasis, with Report of a Case. R. M. Slaughter.
58 Abnormally Small Meatus Urinarius; Important Bearing in Genito-urinary Diseases; Operation. W. H. Prioleau.

Pennsylvania Medical Journal (Pittsburg), February.

59 *Address—Torsion of Arteries. J. W. MacFarlane.
60 *Some Respiratory Conditions Dependent upon Gout and Obesity. J. M. Anders.
61 *A Medical Examination as a Prerequisite to Marriage. J. C. Bateson.
62 Operative Treatment of Bladder Descent and Sacculation. George E. Shoemaker.
63 *Surgery in Its Relation to Neurasthenia. G. D. Nutt.
64 Tuberculosis of the Rectum. William M. Beach.
65 Some Rare Complications of Appendicitis. Ernest LaPlace.
66 Case of Ascites, Due to Hepatic Cirrhosis, Treated by Transplanting the Omentum between the Peritoneum and Abdominal Wall; Result with Autopsy Eight Months Later and Exhibition of Abdominal Viscera Showing Specimen and Horseshoe Kidney. W. J. Roe and Geo. W. Spencer.

Clinical Review (Chicago), March.

67 Trigeminal Neuralgia. Truman W. Brophy.
68 Treatment of Goiter. Joseph M. Patton.
69 Genital Prolapse. G. Frederick Shimonek.
70 Some Observations upon Appendicitis with Report of Some Unusual Cases. J. E. Allaben.
71 Clinical Lectures upon the Etiology, Pathology, Diagnosis and Treatment of Tumors. A. H. Levings.

Annals of Ophthalmology (St. Louis), January.

72 *On Trachomatous Spots in the Malay. L. Steiner.
73 *Amblyopia from Carbon Bisulphid Poisoning. F. C. Heath.
74 An Unusual Form of Superficial Punctate Keratitis. Wm. Campbell Posey.
75 *Residual Sensations as a Test for Diplopia or Heterophoria. Wm. R. Broughton.
76 Opacities of the Vitreous and Amenorrhea. R. Bylsma.
77 A Report of a Case of Dermoid Cyst of the Iris Not Preceded by Trauma. Albert C. Snell.

Buffalo Medical Journal, March.

78 Remarks on Sepsis and Its Treatment. James E. King.
79 What Shall Be Done with the Professional Midwife? Maurice J. Lewi.
80 Report of the Committee on Hygiene. Henry Reed Hopkins.

Bulletin of the Johns Hopkins Hospital (Baltimore), February-March.

81 *On a Simple Method of Preparing Epinephrin and Its Compounds. John J. Abel.
82 *A New Combined Electro-cautery Incisor for the Bottini Operation for Prostatic Obstruction. Hugh H. Young.
83 *The Distribution of Anopheles in the Vicinity of Baltimore. Leonard K. Hirshberg and Gustavus C. Dohme.
84 A New Method for the Demonstration of the Framework of the Organs. Joseph Marshall Flint.

Richmond Journal of Practice, January.

85 Cholecystostomy—A Clinical Lecture. Hugh M. Taylor.
86 The Diagnosis and Treatment of Puerperal Sepsis. Edward McGuire.

Brooklyn Medical Journal, March.

87 A Case of Partly Formed Lithopedion. George McNaughton.
88 Suspension and Fixation for Uterus Displacements. John C. MacEvitt.
89 Hydrotherapy: Its Present Status. John A. Shields.
90 *The Bacteriologic Element in the Etiology in Acute Catarrhal Conjunctivitis. P. Chalmers Jameson.
91 *Surgery of the Posterior Fossa, with Report of a Few Cases. Calvin F. Barber.
92 Nervous Dyspepsia. H. W. Lincoln.
93 General Pathology of Syphilis. Henry H. Morton.
94 The Physiologic Actions of Cinchona. Walter Bryan.
95 Influence of Ocular Defects on the Nervous System. J. W. Ingalls.

American Journal of Surgery and Gynecology (St. Louis), February.

96 Fibroma of the Abdominal Muscularis—Septate Uterus and Double Vagina. C. E. Ruth.
97 The Cure of Insanity by Surgical Removal of Sources of Nerve Irritation and Toxemia, with Special Reference to the Mouth. Ernest Hall.
98 The Treatment of Severe Burns. Allan Staples.
99 Surgical and Medical Epigrams. Lucien Lofton.
100 Some Observations on Cases of Tuberculosis of the Kidney Treated Surgically. Beverly MacMonagle.
101 Gastroptosis. Alexander McPhedran.

Journal of Tuberculosis (Asheville, N. C.), January.

102 *The Development of Tuberculosis in the Individual, with Some Remarks on the Tubercle Bacillus and Certain Allied Forms of Bacilli. H. Edwin Lewis.
103 *The Treatment of Tuberculosis at Home. Charles F. MaGahan.
104 What Should Be the Attitude of the Medical Profession Toward the Public and the Individual Suffering from Tuberculosis? William A. Dickey.
105 Tuberculosis and Childhood—A Résumé. William Jacobsohn.

Dominion Medical Monthly (Toronto), February.

106 Vomiting of Pregnancy. Walter McKeown.

St. Paul Medical Monthly, March.

107. *Renal Tension. Warren A. Dennis.
108 The Treatment of Chronic Suppuration of the Middle Ear and Mastoid Antrum. Cornelius Williams.
109 *The Sanatorium Treatment of Tuberculosis. H. Longstreet Taylor.
110 *Tuberculosis. Charles L. Greene.
111 On Sewage Disposal. George L. Wilson.
112 Water Supply. J. J. Flather.
113 Appendicitis. R. C. Dugan.
114 Median Nerve Palsy. Haldor Sneve.

Ophthalmic Record (Chicago), February.

115 A New Use of Prisms in Heterophoria. F. Park Lewis.
116 Operative Aphakia in Malignant Myopia. Charles H. Beard.
117 A Secure Advancement Operation Performed with the Aid of a New Tendon Tucker. Frank C. Todd.
118 Relapsing Traumatic Bullous Keratitis, with Cases. G. E. de Schweinitz.
119 Ocular Paralysis. M. F. Weymann.
120 The "Crossed Cylinder" in the Determination of the Refraction. E. C. Ellett.
121 An Unusual Result in a Case of Iritis. E. J. Gardiner.

Albany Medical Annals, March.

122 *Psychiatry in the Twentieth Century. Henry M. Hurd.
123 *The Treatment of Interstitial Nephritis. Douglas C. Moriarta.
124 What Shall Be Done with the Professional Midwife? Maurice J. Lewi.

Proceedings of the Pathological Society of Philadelphia, December, 1901.

125 Address, Pathological Society of Philadelphia. Frederick A. Packard.
126 A Contribution Concerning Creatinin Excretion. David L. Edsall.
127 Injuries of the Brain. William S. Wadsworth.
128 Secondary Carcinoma of the Lung (Hematogenous Infection). W. M. L. Coplin.
129 Abscess (Chronic) of Liver, Recrudescence Due to Secondary Infection(?); Thrombosis of Hepatic Vein and Vena Cava; Extensive Necrosis of Liver; Hemorrhagic Infarction(?). W. M. L. Coplin and L. H. Prince.
130 Cancer Thrombus in Branch of Hepatic Vein, with Infiltration of Wall. W. M. L. Coplin and L. H. Prince.
131 Fatty Cirrhosis in the Liver of a Dog. W. M. L. Coplin and L. H. Prince.

Providence Medical Journal, March.

132 *The Nature and Diagnosis of Glaucoma. F. T. Rogers.
133 *Treatment of Pneumonia. Edmund D. Chesebro.
134 The Early History of Medicine in Rhode Island. Donald Churchill.
135 A Case of Sunburn with Fatal Termination. Frank E. Burdick.
136 Report of a Case of Puerperal Eclampsia. Herbert T. Terry.

Canadian Journal of Medicine and Surgery (Toronto), March.

137 The Operative Treatment of Chronic Bright's Disease. A. Primrose.
138 Pulmonary Tuberculosis; Its Treatment and Prevention. A. P. Procter.
139 Treatment of Tubercular Affections of Bones and Joints. Clarence L. Starr.

Therapeutic Gazette (Detroit, Mich.), February 15.

140 Some Unsolved Problems in Medicine and Surgery. William B. Coley.
141 The Shock of Intra-abdominal Operations: Its Etiology, Prophylaxis and Treatment. Lewis S. McMurtry.
142 The Treatment of Itching. M. B. Hartzell.
143 *The Use of Anti-diphtheric Serum in the Treatment of Sepsis. D. Montgomery Paton.
144 *The Drug Habit and Its Cure without Pain. M. K. Loft.
145 An Unusual Case of Retention of Urine. Charles E. Ziegler.

Vermont Medical Monthly (Burlington), February 25.

146 Thoughts on Surgery. John B. Wheeler.
147 A Study of Idiopathic or Progressive Pernicious Anemia, with Clinical and Postmortem Reports of a Highly Interesting Case. Walter D. Berry.
148 Tuberculosis and Its Therapy. C. C. Carroll.
149 Vaccination. F. E. Clark.

Medical Times and Register (Philadelphia), February.

150 The Feeding of an Incubator Baby. Charles W. Townsend.
151 Sulphonal, Aspirin, Hedonal and Lycetol as Anti-arthritics. W. R. D. Blackwood.
152 Smallpox Cures. E. H. Judkins.
153 Impotence, Varicocele, Hydrocele and Other Genito-urethral Disorders. W. H. Walling.
154 The Treatment of Pulmonary Tuberculosis by Carbonic Acid. Hugo Weber.

The Medicus (Frederick, Md.), February.

155 *Observations on Seven Years' Use of Creosote in Pneumonia. J. L. Van Zandt.
156 *Some Remarks on Infections. H. P. Hamilton.
157 The Duty of the Medical Profession in the Prevention of Tuberculosis. J. F. MacDonald.

Chicago Clinic, February.

158 Prevalent Mistakes in Regard to Diseases of the Stomach. Jerome H. Salisbury.
159 The Significance of High Temperature in the Toxemias of Young Children. (To be continued.) Marcus P. Hatfield.

Medical Standard (Chicago), March.

160 A Medical Clinic. Frank Billings.
161 Pain and Its Indications. Edward C. Hill.
162 The Diagnosis of Adenoids. James M. Brown.
163 Treatment of Typhoid Fever. J. T. Moore.
164 Fractures of the Sternum, Scapula and Clavicle. Hime P. Heineck.

Nashville Journal of Medicine and Surgery, February.

165 Perforating Intestinal Typhoid Ulcer. Richard Douglas.

Southern Practitioner (Nashville, Tenn.), March.

166 Etiology of Malarial Fever. D. B. Blake.
167 Treatment of Pneumonia. M. Beshoar.
168 Some Obstinate Bladder Cases. George W. Hopkins.

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1. **X-Ray Treatment of Malignant Growths.**—The following are the conclusions of Morton's article: What is accomplished by the *x*-ray? 1. Relief from excruciating pain and constant suffering, often immediately. 2. Reduction in the size of the new growth. 3. Establishment of the process of repair. 4. Removal of the odor, if present. 5. Cessation of the discharge. 6. Softening and disappearance of lymphatic nodes. 7. Disappearance even of lymphatic enlargements not directly submitted to treatment and often at some distance. 8. Removal of the cachetic color and appearance of the skin. 9. Improvement in the general health. 10. Cure, up to date, of a certain number of malignant growths.

2. **Yellow Fever.**—Doty replies to Souchon's article, which appeared in the *Medical Record* of December 28, and claims that nothing has effectually proven yellow fever to be transmitted by personal contagion, clothing or bedding, or proven that the mosquito is not the medium of infection in yellow fever. He quotes from the records of 1798 and 1806 in support of his point of view and reviews the facts deduced by Souchon and others which are interpreted by them as showing the need of quarantine. He is satisfied that we have reasonably conclusive evidence that yellow fever is not communicated by fomites.

3. **Pneumonia.**—The increasing mortality of pneumonia is noticed by Burt, who suggests as prophylactic measures, aside from disinfection of pneumonia expectoration, avoidance of undue exposure to the weather, ill ventilated assemblages, reasonable attention to sanitation, temperance in eating and drinking, daily bathing to insure healthy action of the skin and regular exercise in the open air with special reference to complete respiration. There is nothing better, he says, to purify the blood and thus fortify the system against infection than systematic deep breathing out of doors while briskly walking or engaged in horseback riding. Frequent changes of underclothing are also desirable. Lobar pneumonia, he says, is universal in diffusion, infectious in nature, unsurpassed in frequency and fatality. The mortality can be reduced, if it can not be eradicated, only by incessant sanitary promulgations.

4. **Diabetic Coma.**—Mayer describes the symptoms of diabetic coma, its causes, diagnosis and pathology, holding that—of the various hypotheses that have been advanced—only two seem to be tenable, namely, that of acidosis or acid intoxication and that of specific toxemia, as taught by Klemperer and von Noorden. One is really a continuation of the other. He notices the theories which might suggest treatment, the experiments of Schwarz with glyconic acid, and remarks that another rational method would be the introduction in the system of a sufficient quantity of ammonia to unite with the various acids found in the condition of acidosis, so that when neutralized the acid intoxication will be reduced, the alkalinity of the blood kept at its normal and the disintegration of proteids prevented. He believes he has accomplished the same results as Schwarz in averting coma by the administration of very large doses of urotropin, and reports a case. The patient was given as much as 20 to 60 grains daily for a considerable period, together with bicarbonate of soda. His reason for using urotropin is that it is a chemical combination of ammonia and formaldehyde, which in the presence of acid splits up into its component parts. This separation takes place in the kidneys, the ammonia being absorbed by the kidneys themselves, thus entering the circulation and neutralizing any acids, while the formaldehyde passes out with the urine. The patient died of asthenia, but coma was apparently averted.

5. **New Test for Albumin.**—The test here described by Fuhs consists in mixing equal volumes of urine and the emul-

sion of equal parts of carbolic acid and glycerin. This makes a perfectly transparent and highly refractive liquid, with normal urine, but if albumin is present, produces a white turbidity, which remains in spite of agitation and does not precipitate. The test is very sensitive, showing the presence of 0.1 per cent. of albumin in the urine, the degree of turbidity corresponding to the amount of albumin contained.

10. **Rectal Valves.**—Martin's article is a reply to one by Bodenhamer appearing in the *New York Medical Journal* for December 28, which was briefly noticed in THE JOURNAL of January 11, p. 130. He reports and illustrates cases which demonstrate, he thinks, the existence of rectal valves and their effects in producing constipation. Congenital valvular obstipation is, he thinks, not uncommon, though he has met with but comparatively few cases in adults. It may be more frequent in early life, children gradually growing out of it with the growth of the rectum, but one skilled in proctoscopy can tell the patient after examination whether or not he as a child suffered from difficult defecation.

12. **The Civilized Indian.**—The condition of the New York Indians on the reservation of Cattaraugus is described by Lake, who finds that they have seriously degenerated under civilization both physically and mentally.

14. **Vasectomy.**—Sharp recommends the performance of vasectomy in hereditary degenerates liable to propagate their defects. He has performed it on 42 patients and claims that it does not impair the sexual power, but improves the physical and mental condition. The method he has adopted lately is the English one which selects the scrotal region as the site. Grasping the vas between the thumb and index finger, make a longitudinal incision about three-eighths of an inch long and sever the vas. This ends the operation and the scrotal wound is not closed. He believes the authority should be given to render every male sterile who passes as an inmate, the portals of the almshouse, insane asylum, institute for feeble-minded, reformatory or prison.

18. **X-Ray Burns.**—Codman reviews the literature of accidental *x*-ray burns and discusses the pathology, classification, etc. The total number of cases which he has been able to find reported is less than 200 and he asks how many exposures this represents. He assumes that these statistics would be drawn from over 1,000,000 exposures and therefore only about 1 case in 5000 has been injured and less than one-half of these seriously. If we make doubly sure by assuming five times as many as reported, we find that only one case in 1000 has been injured. Again, if we include the past year taking only the cases in account that we find, there are 1 or 2 in 200,000. This evidently makes the case harder for the operator if a burn should occur. The largest number reported in any one year since 1897 is 23, and this probably includes a number of cases occurring in earlier years. Only one was reported in 1901. The actual cause of the burn is not known. Most writers agree that it is not heat, nor the brush discharge, nor the photographically active *x*-ray itself, but some form of energy radiating from the platinum terminal with the *x*-ray and probably closely related to it and to ultra-violet light. X-ray injuries are classed by the author in five divisions. The first he calls skiagrapher's dermatitis, occurring usually in workers with the *x*-ray and due to repeated short exposures. These cases are usually mild, but may go on to ulceration and gangrene. The skin generally remains chapped and rough, the wrinkles are obliterated by the swelling and the nails are affected. In the worst form the skin is entirely destroyed and the tendons and joints are involved. The next three classes occur accidentally in patients who are exposed once or several times at short intervals for skiagraphy and may be directly compared to burns of the first, second and third degree. The fifth group includes cases where some internal lesion is attributed to the *x*-ray, but the author does not find any reason to believe in its existence. Codman agrees with the balance of opinion which attributes these results to a primary action on the trophic nerves of the blood vessels and skin. The slowness of their appearance, the progressive character and failure to react to stimulating treatment bear out this view. The severe lesions are atrophic ulcers rather than burns. Of the cases where the character of the lesion is recorded, 167 in number, 55 were skiagrapher's dermatitis, 14 were of the first degree, 29 of the second, and 71 were of the third. As regards the machine used, where the kind of apparatus was recorded, 11 were due to static machine, 3 severe; 11 were due to the Tesla coils, 5 severe; 40 were caused by forms of induction coil, of which 18 were severe. It is probable that coils may have been used much more than static machines or Tesla apparatus, and he notices the general impression among experts that the static machine is the least dangerous; but this shows that it certainly is not free from danger. In only 16 cases were the spark length and other data recorded. The spark length varied from 4 to 12 inches. In many cases the quality of the primary current is noted, but since the tube is actuated by a secondary current the figures have little value, *a priori*. However, the greater the amperage of the secondary current, the greater the chances of danger provided the voltage also is considerable. The quality of the tube is usually reported as soft and soft tubes are supposed to have more therapeutic influence. It is probable that the distance from the skin and the time of exposure have more influence than this factor. The maximum recorded distance from the tube to the skin in cases of injury was 50 cm. (statement of the patient), the minimum recorded distance from the tube to the skin 1 cm. The maximum recorded time of exposure of skin is 20 hours (in 10 exposures), the minimum recorded time 5 minutes; other data are not given. There is probably considerable inaccuracy in these figures, and Codman makes calculations showing the standard of comparison to represent the total exposure in a given case expressing the total time and distance. This is based on the simple law of radiation of light or other energy. From this he reduces all to a uniform figure, giving the formula, time divided by twice the distance equals the equivalent exposure in minutes at one inch distance. Taking the recorded cases he finds that the minimum exposure producing injury was equal to .05 of a minute at a distance of one inch. According to the formula given it would require 5 minutes exposure to produce the same injury at ten inches distance and nearly one-half hour at 24. The idiosyncrasy of the patient is, of course, to be considered a factor which can not be calculated or controlled. He adopts, making the calculations from all the facts, as a standard therapeutic exposure, 10 minutes at six inches, which is equal to .28 at one inch.

19. **Chicken-Pox.**—The views of Hebra, Kaposi and others as to the identity of chicken-pox with variola are mentioned by Schamberg, who then reports an epidemic of chicken-pox occurring in children who were just recovering from a variola outbreak. The only relationship he maintains that exists between chicken-pox and smallpox is the occasional strong resemblance, neither exerting any immunity against the other.

21. **Colon Bacillus.**—The conclusions of Rosenberger are given as follows: 1. That, while not affording a specific reaction in the case of the bacillus coli communis, neutral red agar should be classed as a valuable differentiating medium. 2. The typhoid bacillus, while it does not cause a fading of the color of the medium, never gives rise to the fluorescence noticed in some cultures of the bacillus coli communis. 3. Further, the test medium should not be depended upon as the only differentiating one in the examination of water, as several very common bacteria found in water give the same reaction.

23. **Venom and Antivenene.**—McFarland's article is continued, and in this issue consists mainly of a review of the literature.

24. **Apomorphin in Alcoholism.**—The author's attention was called to the use of apomorphin in alcoholism by an article by Dr. Douglas in the *New York Medical Journal*, and they give a review of reports of its similar use in the literature and the statements as regards the hypnotic action of the drug. They report the results of experiments made in the Bellevue Hospital with the use of this drug, having employed it in about 300 cases both of acute and chronic alcoholism and delirium tremens. They find that it is a decided hypnotic and sums up their conclusions thus: 1. To obtain a hypnotic action with apomorphin it should be given hypodermically. 2. The dose can not be fixed. It is best to begin with a small

dose—1/30 gr. or less—and to repeat this or give a slightly larger dose within a short time. Further doses should not be given after vomiting occurs, until several hours have passed. 3. Doses repeated in two or three hours have but little beneficial effect. 4. The administration of apomorphin should not be repeated in patients who are weak. 5. The duration of the hypnotic action is only a few hours and when the patient awakes his condition is practically unchanged, except in "ordinary drunks." 6. The best results are obtained from apomorphin when it is followed in two or three hours by some recognized hypnotic, as bromid, chloral or paraldehyde. 7. Solutions of apomorphin are unstable, and should be freshly made for use. Old solutions should never be used. 8. Apomorphin may be employed as a hypnotic in selected cases of alcoholism. We obtained the best results in "ordinary drunks" and in cases verging on delirium tremens. But in some of these cases the drug has no effect whatever. 9. The administration of apomorphin to patients in delirium tremens is, in our experience, without beneficial result, and may even be attended with danger from its depressing action."

26. **Proteosuria.**—Among the proteid products occurring in the urine under various conditions are proteoses, which seem to be chemically identical with those formed normally in the gastro-intestinal tract during the digestion of albuminous matter. Mosenthal and Gies have investigated the statement of Freund in regard to the method of detection of peptone in the urine and feces and point out that he has given a rather wide signification to the term peptone and seems to have had proteoses in mind. His method is a simple one, consisting in acidifying 10 c.c. of urine with acetic acid and then treating with 20 per cent. neutral or basic lead acetate. The milky mixture is then boiled thoroughly and the precipitate filtered off. The filtrate is then treated with potassium hydroxid as long as lead hydroxid continues to form. The mixture is then boiled again for a minute or two. The filtrate, it is claimed, is entirely free from urobilin and contains a little more than 90 per cent. of the proteose originally present in the urine. This may finally be detected with the biuret reaction. From numerous experiments to test the validity of this method, examining not only urine and feces, but normal urine treated with Witte's peptone, gelatins, various diuretics, albumin, ox blood, gastro-intestinal mucus, etc., positive results were obtained though they should not occur in the normal excretions. The results show, they think, that Freund's method is not a differential process and can not be safely applied to the urine or feces as a peptone test. They show that the peptones, proteoses and gelatins may each give positive results with it in the urine and feces and that sero mucus in the urine might also affect the final reaction.

28. **Sprue or Psilosis.**—Musgrave has studied this condition in soldiers coming from tropical countries and remarks on the failure to notice it in medical literature. It consists in an inflamed, eroded condition of the tongue and mucous membrane of the mouth, associated with flatulent dyspepsia, pale, copious and generally loose, frothy, fermenting stools, wasting anemia and irregular alterations of exacerbation and quiescence and a tendency to relapse. It follows prolonged residence by whites in the tropics. The disease in the alimentary canal and mouth regions consists of superficial erosions and ulcerations and may extend to the esophagus. In at least 13 of the 16 cases which came under Musgrave's care it existed as a complication or symptom of other diseases. The cases are reported in detail. In the majority, amebic dysentery was the underlying condition. (The article is to be concluded.)

32. **Wounds of the Hand.**—Whitacre reviews the various conditions following wounds of the hand and their treatment. First he speaks of simple felon occurring on the fingers or palm of the hand and insists on the importance of free incision under local anesthesia with the ethyl chlorid spray. He urges absolute cleanliness in the after-treatment and advises the use of antiseptic salts such as a one per cent. solution of aluminum acetate, the use of continuous hot baths, free drainage and wet dressings. A somewhat similar treatment follows acute diffuse cellulitis infection. He calls attention to the importance of treating every kind of wound of the hand with the possibility of such infections in view. He describes the symptoms, but the details of the article are too elaborate to be fully mentioned here. In conclusion he mentions dog bites and insists on the importance of ascertaining the condition of the dog and if it proves rabid, following up with specific treatment as carried out in the Pasteur institutes of New York and Chicago. For preventive cauterization against infections he recommends 10 per cent. solution of chlorid of zinc, as its action goes deeper in the tissues than that of any other agent.

35. **Serotherapy in Epilepsy.**—This article by Ceni, which took the Craig Colony prize, covers the subject of serum injections in this condition. Starting with the autotoxic theory Ceni was led to consider the blood serum of epileptics as having therapeutic possibilities. He tried first to study the effects of small doses of epileptic serum injected into other epileptics, but no results worthy of mention were obtained. He then attempted to see if progressive doses of the same serum would render an epileptic more resistant to the dangers or action of poisons circulating within him. He made his first experiments upon animals and found that they suffered no permanent deleterious effects, but increased steadily in weight. He then tried it on patients using both their own serum and that of other patients, maintaining the most thorough asepsis and reports in this installment of his article 8 cases out of 10 thus treated. They have been under observation during a period varying from one to two years and all presented the severest form of idiopathic epilepsy, both as to number and intensity of motor crises and as to the presence of psychic or sensorial phenomena. He obtains his serum from the patient, carefully ascertaining his condition beforehand to avoid transmitting disease; divides the serum into small bottles holding 10 c.c. each, adding only some camphor. To insure preservation he has long used fractional sterilization, which at low temperature has no influence on the action of the serum. He always begins with 3 to 5 c.c. and increases gradually up to 10 or 20 c.c. in thirty or forty days. The patient reacts violently to the first injection, however small, and this progressive method is therefore necessary. During the first month he injects into the glutei at intervals of a few days, in increasing doses, a quantity of 40 or 50 c.c. During the following months, after the adjusting period is passes, he carries the total dose to 80 or 100 c.c., especially when the patient begins to improve. In these cases he continues the injections until he thinks the maximum dose has been obtained which is inferred when there is no longer any reaction to the doses. Of the eight cases reported in this paper improvement occurred in nearly all and in two cases there seemed to be a practical cure.

36. **School Hygiene.**—Chapin suggests various measures in school hygiene and in the way of instructing children in cleanliness and avoidance of everything that will produce disease. He says children should be taught: Not to spit; it is rarely necessary. To spit on a slate, floor or sidewalk is an abomination. Not to put the fingers into the mouth. Not to pick the nose. Not to wet the finger with saliva in turning the leaves of books. Not to put pencils into the mouth or moisten them with the lips. Not to put money into the mouth. Not to put pins into the mouth. Not to put anything into the mouth except food and drink. Not to swap apple cores, candy, chewing gum, half-eaten food, whistles, bean blowers or anything that is habitually put in the mouth. Teach the children to wash the hands and face often. See that they keep them clean. If a child is coming down with a communicable disease it is reasonable to believe that there is less chance of infecting persons and things if the hands and face are washed clean and not daubed with the secretions of the nose and mouth. Teach the children to turn the face aside when coughing and sneezing, if they are facing another person. Children should be taught that their bodies are their own private possessions, that personal cleanliness is a duty, that the mouth is for eating and speaking and should not be used as a pocket and the lips should not take the place of fingers."

40. **Urticaria of the Upper Respiratory Tract.**—The condition described in Somer's paper seems to be much the same as has been reported by various authorities as the faucial and pharyngeal manifestations of angioneurotic edema.

41. **Hematuria for Movable Kidney.**—In the case reported by Cabot there was a hematuria with symptoms which seemed to indicate that it was due to dragging on a movable kidney; it was apparently mitigated by a change of position, which relieved the dragging. The patient was finally cured by operation. He has studied the literature to find similar cases and finds but one which corresponds exactly in its description. It is plain, he says, that a kidney with short vessels will be quick to feel the effect of a downward pull. With a kidney lying unusually high, it is conceivable that this pull might produce considerable obstruction to the circulation before the organ came down low enough to be regarded as a movable kidney. Cases of hematuria are occasionally reported in which no cause can be discovered and in which cutting down upon the kidney and splitting the capsule effects a cure. He asks if some of these may not be instances of congestion from the unrecognized downward drag, which has been corrected by the adhesions following the incision into the kidney.

43. **Spinal Fracture.**—The following are the conclusions of Walton's article: 1. There are no symptoms which establish (otherwise than through their persistence) irremediable crush of the cord. 2. While total relaxed paralysis, anesthesia of abrupt demarcation, total loss of reflexes, retention, priapism and tympanites, if persistent, point to complete and incurable transverse lesion, the onset of such symptoms does not preclude a certain degree at least of restoration of function. 3. The prognosis without operation is grave. 4. While the results of operation are not brilliant, they are sufficiently encouraging to warrant us in making the practice more general. 5. In most cases it will be wise to operate within a few days of the injury; but a delay of some hours is advisable, partly on account of shock and partly to eliminate the diagnosis of simple distortion. 6. We have no infallible guide to the extent of the lesion. The operation, at the worst, does not materially endanger life nor affect unfavorable the course of the case, and may, at least, reveal the lesion and lessen the pain; it may sometimes save a patient from death or from helpless invalidism of the most distressing character. Instead of selecting the occasional case for operation, we should rather select the occasional case in which it is contra-indicated (the patient with great displacement of vertebræ, the patient with high and rising temperature, the patient plainly moribund, the patient still under profound shock). 7. The dura should be opened freely; it need not be sutured; drainage is not necessary.

52.—See abstract in THE JOURNAL, xxxvii, p. 934.

59. **Torsion of Arteries.**—The subject of MacFarlane's address is arterial torsion after hemorrhage, and he advocates it as expedient and effective. It will not absolutely prevent secondary hemorrhage, but it is, he believes, as effective as ligation, and in the Western Pennsylvania Hospital it is considered the best method for arresting hemorrhage. The rule is to perform torsion in all cases when not contra-indicated; oozing veins are treated in the same way. In most cases of amputation there were no ligatures or sutures except those of the flaps. Amputations contiguous to tissues that have undergone changes in chronic inflammation are mentioned with the probability that torsion will not suffice, but MarFarlane is rather inclined to believe in its efficiency even in these cases. He reports from the records of Dr. Murdoch showing a number of cases in which it has been used. In his own last term of service, in 17 cases there were 13 with 15 amputations of either the leg or thigh, one being a double amputation and another a second amputation in senile gangrene with atheromatous arteries. This last case died, being the only fatality. In all these cases hemorrhage was arrested by torsion, with the exception of the nutrient artery of the bone, which was plugged.

60. **Gout and Obesity.**—Anders calls attention to certin complications of these conditions such as a hyperemic type of bronchitis with troublesome cough, and frequently copious, mucoid expectoration, which he finds especially in the anemic variety, associated with the phlegmatic temperament. Dyspnea is common in this type also, although it is not so frequent if the patient be plethoric. The bronchitis of anemic obesity runs a slow and often irregular course, unless the underlying causative condition is relieved. Closely connected with this variety of bronchitis and to some extent dependent upon it is asthma, the attacks usually occurring at night after hours of sleep, as they do from other causes, such as gastric disturbance. Its cause seems to be associated with the gouty diathesis and hepatic inadequacy. His own observation and experience lead him to think that the severe paroxysmal dyspnea seen in obesity is, in many cases, not a true asthma; and the attacks are often relieved by assuming the erect posture. Genuine asthma may occur, though less often than supposed. The question of the relation of asthma to polysarcia is somewhat obscure. His own tentative conclusions are: 1, that asthma occurs in about 5 per cent. of the cases of obesity; 2, that it only occurs in extreme polysarcia; 3, that a gouty state or history is found in most cases in which true asthma is secondary to obesity; 4, that about one-half of the cases are curable by overcoming the causative condition." The dry, chronic bronchitis of Laennec is recognized by most writers as a distinct variety of bronchitis due to the gouty state and is to be regarded as part of the general fibroid process in some cases. In conclusion he calls special attention to the form associated with hepatic and renal inadequacy and a highly acid urine; a type of lithemic bronchitis characterized by dry irritating cough with slight expectoration and no specially peculiar physical signs. Exacerbation may occur at any season of the year, depending upon fluctuations in the uricacidemia. The principal thing in the treatment of these cases is to recognize the cause and treat the lithemic state.

61. **Medical Examination in Marriage.**—Bateson maintains that a person should consider his health as a matter of entailment; that heredity should always be considered in marriage, hence the duty of everyone to consider the possibility of transmission of his own physical defects. It is evident that medical examination as an essential preliminary to marriage would be a great aid in preventing the production of defective human beings.

63. **Surgery in Neurasthenia.**—The various conditions of disease capable of surgical relief are noticed by Nutt, who wishes to emphasize the following points: 1. That there are many pathologic lesions of various organs, which, by nagging and goading the nerve centers, will sooner or later cause various neurotic disturbances called neurasthenia. This result often overshadows the original lesion which causes it. In order to fully appreciate and detect these reflex disturbances as we meet them in general practice, we must have more intimate knowledge of the abnormal conditions of all the organs. 3. That by restoring or correcting these diseased or displaced organs, the nervous symptoms will often promptly disappear. 4. That in another large class of neurotic patients with organic lesions, an important part of the treatment is to remove these lesions, in connection with the medical treatment necessary to restore the nerve function itself. 5. That knowing the effect of various diseased organs and anatomical lesions on the nerve centers, their early correction or repair would save years of invalidism and mental suffering to a large number of patients.

72. **Trachoma.**—Steiner describes, occurring in Malays, certain diffuse brown colorations with interspersed darker places extending from the cornea over the conjunctiva, and regular round black spots like ink, from the size of a pinhead to that of a pea, produced by trachoma. They have no pathologic importance, but if he followed the practice of some oculists in Europe of removing black spots from the conjunctiva to prevent the production of malignant tumors he would have to operate on about one in every ten Malay patients. Similar patches appear in other colored races. He has seen them in the Chinese and in one full-blooded Arabian.

73. **Carbon Bisulphid Poisoning.**—Heath reports a case

which he thinks is the second one in this country and describes the symptoms: headache, vertigo, irritable temper, nausea, ringing in the ears, replaced later by insomnia, low spirits, anesthesia and weakness. In advanced cases mental debility is observed. The eye symptoms may appear in the first stage, but the complaint of fogginess is most pronounced in the latter stage. The central visual acuity may be reduced to counting fingers at three meters or seeing only large type. There is generally pallor of the optic disc on its temporal half, though the fundus may be normal. The question whether it is a retrobulbar or axial neuritis or a lesion elsewhere is of interest, but he does not express a positive opinion. The prognosis is favorable and recovery rapid if only the early symptoms are experienced, but if mental and muscular weakness occur, permanent injury may be produced.

75. **Residual Sensations.**—Broughton criticises C. F. Cooke's test for diplopia with residual sensations and the measure of ocular muscle imbalance. Cooke's theory is that when one eye is closed, with relaxation of the levator palpebræ muscle, there is less tendency to fusion of images and the closed eye assumes its natural position more readily than when simply shielded by a screen. If the eye tends to deviate from its fellow there will be transient diplopia on opening and a second image of a candle-flame or a luminous point will be seen to merge quickly into the image seen by the other eye. Broughton has found this test very unreliable. The pressure exerted on the globe by the eyelids in the natural effort of closing one eye without the other is enough, in his opinion, to produce deviation in the axis of vision observed. He thinks such a statement as that of Cooke's is misleading and the article should not be passed without criticism.

81. **Epinephrin.**—Abel describes the method of producing this material and its behavior under different re-agents. He finds that the blood-pressure reducing constituent of the suprarenal gland can be isolated by his method in the formation of a basic, minutely crystalline though unstable compound which agrees in some of its properties with the substance he has called epinephrin while it fails to exhibit certain other qualities equally fundamental and characteristic. Mineral acids, however, easily convert this substance into one which is physiologically active and also gives all the characteristic reactions of epinephrin. Highly soluble and apparently stable salts of therapeutic and chemical importance are therefore easily made. Further analyses will soon be given showing the changes that take place under the influence of acids, how these new compounds agree with those of the former series described by the author and how far the substances isolated by zinc processes agree in composition with those similar and probably identical compounds contained in the material analyzed by Aldrich and Takamine.

82. **Bottini's Operation.**—Young describes a new instrument which differs from the Freudenberg apparatus by having interchangeable blades and other alterations such as the shape of the handle and beak. He thinks these are decided advantages, and reports a number of cases showing the working of this instrument. He calls attention to the special local examination which should be made with the catheter, finger and cystoscope to locate and diagnose the exact condition in the prostate and emphasizes the importance of employing the Bottini operation in accordance with the character of the prostatic obstruction as thus ascertained.

83. **The Anopheles of Baltimore.**—Hirshberg and Dohme give results of their investigation on waters and regions around Baltimore with special reference to the destruction of malaria-bearing mosquitoes. They find that two species breed there, one in the higher regions, the other in the lower and salty marshes. The distribution is such that they conclude the extirpation of the mosquito is an impossibility and the prophylaxis of malaria will have to be confined to the careful screening of doors and windows and the protection by screens of persons already infected from mosquito malaria. The disease should also be reported to the board of health to enable them to take precautions.

90. **Bacteriology of Conjunctivitis.**—From a study of the subject, Jameson concludes: "1. That the etiology is probably not primarily bacteriologic. 2. That acute and more often chronic hyperemia of the conjunctiva is probably the exciting cause. 3. That the condition resulting from this vesicular derangement is a change in the fluid constituent of the conjunctival sac by the outpouring of sanguineous exudate from its impaired vessels. 4. That this in turn gives to organisms already existant in the sac, principally the staphylococcus epidermis albus, a suitable nidus for rapid propagation. The normal equilibrium being immediately overthrown, diminished resistance, epithelial abrasion, altered secretion, and impaired irrigation antagonize and overpower the attributes the organ possesses of maintaining the sac in health."

91. **Brain Surgery.**—Barber reports several cases in which he opened the posterior cranial fossa in apparent tubercular disease with good results. In another case of ruptured cyst, in which drainage was instituted, the patient did not recover, although the symptoms were for a while somewhat relieved. He calls attention to the advantage of drainage in this most inferior portion of the cranium over puncture through the fontanels and direct drainage in the lateral ventricles. The natural position of the head in operation on the hind brain is all that is to be desired. It is possible that in tubercular cases the mere exposure of the diseased parts to the air may be of value, as in peritonitis. While his results have not been brilliant, still he has prolonged life and made it more durable.

12. **Tuberculosis.**—Lewis has studied the action of sputum inoculations in different stages in guinea-pigs and believes that the tubercle bacilli found in the late stage of pulmonary tuberculosis are more virulent than those found at the onset, though as yet he has not accumulated sufficient evidence to positively establish this point. He thinks the tubercle bacillus is evolutionary in character and that this evolution is evidenced by certain variations and gradations in a morphology and virulence modified by the chemic or biochemic conditions of different environments. We do not as yet know enough about the vital resistance or immunity. The cure of tuberculosis is as far in the distance as ever. He emphasizes the fact that development of tuberculosis in the individual is the result of coincidence not in one but in several conditions, viz.: 1. A potent tubercular infection depending for its potency on a certain degree of virulence. 2. A certain negative chemic or histologic condition of the lymph nodes, resulting from hereditary tendencies or from circumstances of environment, which fail to arrest or inhibit the growth and systemic ingress of potent tubercle bacilli. 3. A retrograde metamorphosis of structural cells in some part of the body, more particularly in the lung, from trophic, traumatic or toxic influence which favors the local growth of the invading germ. Thus a particularly large amount of a specific virulent tubercular infection might overcome resistant conditions and on the other hand, a weakened lymphatic system would be more vulnerable to a non-potent infection.

103. **Home Treatment of Tuberculosis.**—McGahan admits that the sanatorium furnishes the best results; but for the majority of patients who have to be treated at home he recommends certain rules. He suggests keeping the patient as much as possible out of doors, if necessary building a tent in the back yard or putting the bed on a balcony or roof. The disease should be recognized early to protect other members of the family and the patient's sleeping quarters must be isolated. The habit of kissing should be prohibited. The patient should rinse out his mouth with an antiseptic solution every day. All the necessary precautions for the protection of sputum should be carried out. Ventilation of the apartments in which the patient lives is emphasized and he should not be afraid of night air. Use a room with a fireplace instead of a stove. Proper feeding is as important as ventilation, and McGahan would give the patient as much nourishment as he can assimilate. It is well to give some hot drink in the morning on wakening, before getting out of bed, such as a glass of hot milk,

cocoa or beef tea. This loosens the mucus and strengthens the patient. If the digestion permits it is wise to give three meals a day and also some light food between the meals and upon going to bed. But one should not overtax the digestive organs. He strives to have the patient take daily from one and a half to two gallons of milk and at least four eggs, cooked in any way except fried. Roast beef, beef steak, mutton, lamb, turkey or chicken with vegetables should be given with enough variety to tempt the appetite. Plain pudding or fruit may be allowed for dessert, but the eating of pastry should be discouraged. Alcohol is to be used only when the patient needs stimulation. While there is fever it is well to keep him in the reclining position, as in a reclining chair, but when the fever ceases exercise should be encouraged, especially to expand the chest, but fatigue must be avoided. There is no specific drug. Tonics may be used and he finds the best results from iron, strychnia, codein and arsenic. Cod-liver oil and malt are foods and when properly administered can be taken by any patient. The gastric function should be watched. Each form of tuberculosis must be treated according to the symptoms. Cough needs no treatment unless it disturbs the rest; in this case codein and heroin have served the best purpose. When the patient has had no fever for six months, cough has ceased and the tubercle bacilli are lacking in the sputum, we may consider him cured, but the patient should afterward live in good air, have plenty of it day and night and, if possible, follow an occupation that will keep him out of doors. In any case he should be watchful in regard to his health.

107. **Renal Tension.**—In this paper Dennis takes up the view of Reginald Harrison on the effects of renal tension and reports cases. He believes that attention should be directed to this element in the pathology of the kidney and the importance of considering the possibility of rendering surgical relief where medicine seems to fail.

109. **Tuberculosis.**—The advantages of the sanatorium treatment of tuberculosis are enumerated by Taylor and the corresponding difficulties of carrying on the same treatment at home. Co-operation and example of other patients and close medical supervision overcome the patient's prejudice and make him do what is best for himself.

110. **Tuberculosis.**—Greene believes that we should have a national board of health, with a cabinet officer at its head, to direct a national crusade against such diseases as tuberculosis. We should disseminate information in regard to this infection; insist on regulation, enforcement of laws against spitting in public conveyances and walks; demand frequent and thorough disinfection of sleeping cars, hotel apartments and public buildings, and the most rigid inspection of all meats and dairy products. There should also be provided sanatorium hospitals for the consumptive poor and societies should be formed for the enforcement of sanitary regulations and dissemination of information along the lines suggested.

122. **Psychiatry in the Twentieth Century.**—The conditions and treatment of the insane at the present time are reviewed by Hurd and historic facts referred to. He calls attention to the importance of the study of the pathology of the condition, the ineffectiveness of medical treatment, the need of better clinical studies, proper management and location of hospitals, special training for those who care for lunatics, the assumption of this care by the state, attention to the different classes of patients and doing away with the political management of insane hospitals. The last mentioned he calls one of the greatest evils of the day. As regards prophylaxis of insanity, he considers especially the injudicious use of alcohol and thinks we should have some efficient measures for controlling this evil. The importance of heredity should also be insisted upon and the public instructed accordingly so that the propagation of insanity may be checked.

123. **Interstitial Nephritis.**—Moriarta insists on the importance of hygiene, proper climate, a regular quiet outdoor life, regulated diet, and avoidance of uric-acid producing substances. A milk diet is admirable in cases of chronic uremia. He sees no objection to a limited amount of tea and coffee when the kidneys are secreting a proper amount of fluids and solids; a light animal diet with vegetables and cereals is permissible. The amount of animal food depends upon each individual's condition. Alcoholic beverages may be in some cases a very grateful and necessary stimulant, but malt liquors are objectionable. A light wine with only a small percentage of alcohol is best. The secretion of urine should be carefully watched, and all these matters should be observed continuously. A few drugs, such as iodid of potassium, bichlorid of mercury or calomel in small continuous doses and tincture of muriate of iron, associated with the proper prophylactic measures are useful in these conditions of chronic nephritis before organic changes become marked. The cause of the condition should be considered, whether of syphilitic, gouty or metallic origin, and the treatment directed accordingly. When exacerbation occurs with mild uremic symptoms, the patient should go at once to bed and the bowels should be relieved by some saline cathartic, preceded or not by calomel as may be determined. While ventilation is necessary, chilling is to be avoided. A light diet should be at once instituted and a quantity of water given at regular intervals; hot water is best and ice water should be avoided. Cream of tartar water is useful when the secretion of urine is scanty and vapor baths are also serviceable. The condition of the heart and vessels should be ascertained, and when the attack does not clear up, urinary secretion keeps down and edema appears, we must act quickly; cardiac stimulants and drastic purgatives are of use. Elimination by the skin must be utilized as quickly as possible. If convulsions occur, chloroform should be inhaled, morphia given hypodermically and chloral by the rectum. If the right side of the heart is engorged, he believes a little blood-letting from the arm may be of use. The successful treatment of this condition requires that one should be familiar with the physiologic action of the remedies, in addition to the thorough appreciation of the pathological condition of the patient.

132. **Glaucoma.**—The lack of diagnosis of this condition and misdirected treatment and consequences are specially noticed by Rogers, who cautions against the indiscriminate use of atropin in eye diseases. He reports cases and says: "Always think of glaucoma when you look at an inflamed eye and then no mistake will be made." Mydriatics act badly by crowding the iris into the filtration angle and tend to block it, this increases the ocular tension and they may even thus produce glaucoma by their action.

133. **Pneumonia.**—The important features of the treatment of pneumonia are summarized by Chesebro as follows: "1. Place the patient under the most favorable hygienic conditions with special reference to ventilation. 2. Carefully regulate the diet, guarding against constipation and insisting upon the liberal use of pure, cool water. 3. Early in the course of the disease employ counter-irritants, particularly in the broncho-pneumonia of children. 4. Relieve distressing cough by inhalations and if necessary by the use of opium or its derivatives. 5. Relieve pleuritic pain by the intermittent use of hot or ice poultices or by the subcutaneous use of morphia. 6. Reduce temperature, if necessary, by bathing. 7. Stimulate heart with strychnin and in selected cases with alcohol, digitalis and normal salt solution. It is possible that venesection, which may be followed immediately by the injection of normal salt solution, is indicated in certain cases of engorged right heart and if boldly done may be instrumental in saving life. 8. Employ large and frequently repeated doses of antipneumococcic serum in desperate cases, particularly in those with a tendency to extension of the inflammatory process."

143. **Antidiphtheric Serum in Sepsis.**—Paton recommends the use of this drug by the mouth in cases of sepsis. He reviews the authorities to some extent to show the action of the gastric secretions upon antitoxin. He has given over 8,000,000 units of diphtheria antitoxin by the mouth during eight and one half years and claims that it proves the value of the method. The form in which he gives it is to add carmin 8 gr. to the ounce to the British pharmacopeia solution of traga canth. The formula then runs:

Diphtheria antitoxin, 3000 units;
Mucilag. tragacanth. carmin, q. s.;
Aqua, q. s. ad fℨiiss.

The dose usually given is half an ounce and varies from night and morning to every six hours, the latter only in exceptionally severe cases. For erysipelas half an ounce every eight hours is usually effectual. For acute peritonitis or appendicitis repeat the above dose in two hours, again four hours later and then in eight hours more. This usually does all that is required. Abscess when formed usually requires operation, but the use of antitoxin may relieve the constitutional symptoms and if employed in time may abort the abscess. For children the same dose may be given, but for small children one-half the dose is effective. In about one per cent. of the cases a little kidney irritation or skin eruption may be seen; both are only transitory.

144. **The Drug Habit.**—The method employed by Lott is the use of hyoscin in free doses. In the opium habit he gives nothing to move the bowels, for as soon as the opium is out of the system a bilious diarrhea sets in. The patient should have had his customary dose of opium an hour or so before beginning the treatment. Lott gives the patient about 1/100 of a grain of hyoscin hydrobromate and 1/20 of a grain of strychnia nitrate and repeats with 1/200 of a grain of hyoscin every thirty to forty-five minutes until he finds the amount that will affect the patient. When the dose is determined, it is administered about once an hour for forty-eight hours, never leaving the patient for a minute. In case of alcohol habit he begins with a purge of calomel and if the patient is not using morphia also he could be given a dose of that drug to quiet him at the beginning or during treatment. At the end of forty-eight hours' treatment with hyoscin the patient is allowed to come from under the remedy and will usually say he does not want any of his accustomed drink. Then Lott gives doses of pilocarpin, 1/8 gr. usually reinforced with strychnin nitrate, 1/20 of a grain every two to four hours. The mouth that has been so dry under the hyoscin begins to be wet and saliva abundant. The urine which has been scanty and high colored becomes abundant and clear and skin elimination is active. If the pilocarpin acts too freely a small dose of atropin 1/150 gr. will check it. The diarrhea, which is by this time annoying, is best controlled by doses of bismuth subgallate and the fluid extract of coto bark, 30 to 40 drops, four to six times a day. If the patient goes to sleep and sleeps from two to twenty-four hours he does not discontinue the hyoscin. The heart and respiration are carefully watched. When the patient comes out of his sleep he will probably be flighty, but will be easily managed. The after-treatment consists in building up the health, appetite, digestion and assimilation and regulating sleep. He reports cases to show that hyoscin can be utilized in this way with safety, giving the details of each dose.

155. **Creosote in Pneumonia.**—Van Zandt has been using carbonate of creasote since 1890 and has lost but one case; in this the drug was absolutely ineffective. He has seen one or two other instances where this drug has failed, but, as a rule, he thinks, a large percentage of pneumonia cases are shortened or aborted, almost all the rest are mitigated, while only a very small percentage are not at all affected by the remedy. He does not think calomel or guaiacol a proper substitute. He has been giving it in doses of 7.5 to 10 grains or minims every three hours. He never uses expectorants or nauseants, ordinarily only the carbonate of creasote without other medication. Occasionally strychnia with an anodyne in the beginning of painful cases is indicated.

156. **Infections.**—The conclusions of Hamilton's paper are as follows: "1. It is through the lymph channels, and not the blood vessels proper, that we get septicemia after pyogenic infection. 2. Where we have so-called pyemia or septic emboli lodged in other portions of the body, it always comes from the blood vessels after a certain amount of trauma. 3. A tubercular abscess is almost always distant from the site of infection and situated in the lymph nodes on the proximal side from the site of invasion. 4. Tubercular septicemia always comes from the involved blood vessels and not through the lymph channels. 5. A typhoid infection differs in no respect from a pyogenic infection, except as it is altered by the structures involved. 6. The initial lesion of typhoid fever is sure to be in the bowel from the character of the lesion found in the gut. 7. Death from typhoid fever almost always comes either from typhoid septicemia or from perforation. 8. Septicemia from typhoid fever is more liable to occur than septicemia in a simple abscess, owing to the histologic structures involved and a milder form of infection, causing thereby less infiltration of leucocytes. 9. The site of infection with malaria is in the capillaries and its ravages are in the blood vessels; later symptoms are produced by the irritation of the germs on the capillary wall. 10. The pathological changes in smallpox are in the blood at first, and then transferred to the tissues, where the same pathological changes take place that we find in any pyogenic suppuration."

FOREIGN.

Titles marked with an asterisk (*) are abstracted below.

The Lancet (London), March 1.

1 The Anatomy, Physiology and Pathology of the Imperfectly Descended Testis. W. McAdam Eccles.
2 *Certain Diseases of the Blood Vessels. A. Pearce Gould.
3 *Gray Hair and Emotional States: An Anthropologic Note. Robert Jones.
4 *A Note on Hypostatic Albuminuria of Splenic Origin. H. D. Rolleston.
5 Removal of a Sarcomatous Tumor from the Tail of the Pancreas of a Child 4 Years and 8 Months Old. John D. Malcolm.
6 *General Remarks on Asylum Dysentery and Its Treatment by Injections of Permanganate of Potash. P. W. MacDonald.

British Medical Journal (London), March 1.

7 *Feeding in Gastric Ulcer. Lauder Brunton.
8 Medical Diagnosis and Modern Discoveries. John Adam.
9 Remarks on Congenital Cysts of the Tongue. John Ward Cousins.
10 Anatomy, Physiology, and Pathology of the Imperfectly Descended Testis. W. McAdam Eccles.
11 *A New Method of Dealing with the Peritoneum in Operating for Radical Cure of Umbilical and Inguinal or Femoral Hernia. W. F. Brook.
12 Rupture of the Jejunum from Direct Violence without External Bruising. J. Lockhart Livingston.

Indian Medical Gazette (Calcutta), February.

13 Pre-service Surgeons. (Continued.) D. G. Crawford.
14 A Further Note on the Occurrence of Typhoid Fever in the Natives of India. George Lamb.
15 Notes on an Outbreak of Surra with Observations on the Trypanosoma. E. D. G. Grieg.
16 The Thyroid Gland and Puerperal Convulsions. M. Sinnatamby.
17 Weights of Human Viscera (in Natives of Bengal). W. J. Buchanan and F. J. Daly.

Hospitalstidende (Copenhagen), January 1 to 22.

18 *Operative Treatment of Non-Tubercular Chronic Nephritis. T. Rovsing (Copenhagen).—"Om operativ Behandlung ved kroniske Nefriter (Tuberkulose undtaget)."
19 Comparison between Dissemination of Human and Bovine Tuberculosis. H. Roerdam.—"Udbredelsen af Kvaegtuberkulosen i Forhold til Tuberkulosen blandt Menneskene."

January 29 and February 5.

20 Determination of the Outlines of the Stomach. A. Blad (Copenhagen).—"Om Ridsauskultation og Transsonans saerligt med Hensyn af Ventrikulens Graensen."
21 Gonococcus Cystitis. P. Haslund.—"Om gonokokkisk Cystitis."

February 12.

22 The Insane Asylums in Denmark. H. Fehr (Viborg).—"Vore Sindssygeanstalter."

Bulletin de l'Acad. de Med. (Paris), February 18.

23 *Chloroform Anesthesia in Case of Heart Disease. General Discussion.

Presse Medicale (Paris), February 12 to 22.

24 Unity of Human and Bovine Tuberculosis. S. Arloing (Lyons).—"Unité de la tuberculose humaine et bovine."
25 Non-Contagiousness of Alopecia Areata. E. de Lavarenne (Paris).—"La question de la pelade."
26 Lead Poisoning from Manufacture of Artificial Pearls. E. Gaucher (Paris).—"Une nouvelle cause d'intoxication saturnine. La fabrication des fausses perles."
27 Study of the Pathogenesis of Bronzed Diabetes. Rabé (Paris).—"Pathogénie du diabète bronzé."

Nord Med. (Lille), February 15.

28 Night Cries in Hip and Pott's Disease. S. Veras (St. Pol-sur-Mer).—"Des cris nocturnes dans la coxalgie et le mal de Pott."

Revue de Medecine (Paris), February.

29 System in the Clinic. R. Lépine (Lyons).—"De la méthode en clinique."
30 *Pathogenic Unity of Dysentery; Serotherapy. T. Moreul and Rieux.—"Unité pathogénique de la dysenterie; Sérothérapie."

31 *Otitic Origin of Asymmetry of the Facial Expression. Lannois and Pautet.—"De l'asymétrie de la mimique faciale."
32 Pneumo-typhoid Fever. Busquet (Alger).—"Contribution à l'étude de la pneumo-typhoide."
33 Malarial Polyneuritis. C. Mathis Naval Surgeon.—"Trois cas de polyneurites palustres."

Progres Medical (Paris), February 22.

34 *Arthritic Pseudo-Tuberculosis. H. Grasset (Paris).—"Difficulté du diagnostic entre la tub. pulm. au début et certaines localisations arthritiques."

Semaine Medicale (Paris), February 19.

35 *Strict Milk Diet for Adults. R. Lépine (Lyons).—"Le régime lacté chez l'adulte."

Allg. Med. Ctl.-Zeitung (Berlin), February 22 and 26.

36 Application of Heat in Therapeutics. Especially Fango. M. Silber.—"Zur therapeutischen Verwendung der Wärme, mit bes. Berücksichtigung der Fango-Behandlung."

Centralblatt f. Chirurgie (Leipsic), March 1.

37 *History of Gelatin as a Hemostatic. Y. Miwa (Japan).—"Zur Geschichte der Gelatine als Hämostaticum."
38 *Proposed Operative Treatment of Sciatica. R. von Baracz (Lemberg).—"Ein Vorschlag zur op. Behandlung der Ischias."

Deutsche Med. Wochenschrift (Berlin and Leipsic), February 27.

39 *Renal Colic, Renal Hemorrhage and Nephritis. J. Israel (Berlin).—"Nierenkolik, Nierenblutung und Nephritis."
40 *Albuminuria Induced by Massage in Nephritis. E. Ekgren (Stockholm).—"Der Albumingehalt des Harns der Nephritiker unter dem Einfluss der Massage."
41 *Pruritus Vulvæ. L. Seeligmann (Hamburg).—"Zur Aetiologie und Therapie des Pruritus Vulvæ."

Mitteilungen a. d. Grenzgebieten (Jena), ix, 3.

42 *Surgical Treatment of Lung Disease. H. Quincke (Kiel).—"Ueber die chir. Behandlung der Lungenkrankheiten."
43 *Ibid. Garré (Königsberg i. P.).
44 *Operative Treatment of Gangrene of the Lungs. H. Lenhartz (Eppendorf).—"Zur op. Behandlung des Lungenbrandes."
45 Rare Forms of Atrophy of the Bones and Osteomalacia. W. Anschütz (Breslau).—"Ueber einige seltene Formen der Knochenatrophie und der Osteomalacie."
46 Study of a Thiry Fistula on Man. Nagano (Breslau).—"Beobachtungen an einer Thiryschen Fistel beim Menschen."
47 *Attempts to Disinfect the Small Intestine in Man. L. von Mieczowski (Breslau).—"Desinfektionsversuche am menschlichen Dünndarm."
48 Defect in the Trapezius Cause of Congenital Elevation of Scapula. W. Kausch (Breslau).—"Cucullarisdefekt als Ursache des cong. Hochstandes der Scapula."

Muenchener Med. Wochenschrift, February 25.

49 Avoidable Complications of Appendicitis. A. J. Ochsner (Chicago).—"Vermeidbare Appendicitiskomplikationen."
50 Experimental Study of Etiology of Thrombosis of the Sinuses. A. Doerr (Munich).—"Ein exp. Beitrag zur Aetiologie der Sinusthrombose."
51 *Tumors. Disselhorst.—"Histogenetisches und Verleichendes ueber Geschwülste."
52 Positive Typhoid Agglutinating Test in Puerperal Fever. F. Lommel (Jena).—"Ein Fehldiagnose auf Grund der Gruber-Widal'schen Reaktion bei Puerperalfieber."
53 *Ambulant Treatment of Tubercular Joint Disease of the Legs. Wagner (Kreuznach).—"Zur amb. Behandlung der tub. Gelenkerkrankungen der unteren Extremitäten."
54 *Position of Patient in Operating on Biliary Passages. F. Berndt. (Stralsund).—"Zur Lagerung des Patienten bei Op. an den Gallengängen."

Therapeutische Monatshefte (Berlin), February.

56 *Ergotin as a Prophylactic and Specific in Puerperal Fever. Solt (Nitau, Livland).—"Ergotin als Prophylacticum und Specificum beim Wochenbettfieber."
57 "Mumme" in Infant Feeding. J. Reichelt (Vienna).—"Ernährungsversuche im Säuglingsalter mit Mumme."
58 Bromocol in Epilepsy. Reich and Ehrcke (Berlin).—"Bromocoll."
59 Essential Principle of the Suprarenals. H. Singer (Elberfeld).—"Die Nebennieren und ihr wirksames Princip." (Concluded from No. 1.)
60 Nosoparasitism and Orthoparasitism. O. Liebreich (Berlin).—"Ueber Nosoparasitismus und ueber Orthoparasitismus."

Wiener Klin. Rundschau, February 9 to 23.

61 Treatment of Articular Rheumatism with Acetopyrin. G. Spuller (Vienna).—"Ein Beitrag z. Acetopyrin-Medication bei Gelenksrheumatismus."
62 *Study of Disinfecting Soaps. C. Tonzig (Padua).—"Beitrag z. Studium der sog. desinficirenden Seifen mit bes. Berücksichtigung der Creolin-Seifen."
63 *Carbolic Treatment of Septic Processes. Chlumsky (Cracow).—"Ueber die Carbolbehandlung der inficirten Wunden und der septischen Processe."
64 *Radical Operation of Hypertrophied Prostate. E. Roth (Budapesth).—"Die Radicaloperation der Prostatahypertrophie."

Wiener Klin. Wochenschrift, February 20.

65 *Phlegmon Around Hernia. G. Lottheissen (Innsbruck).—"Ueber perihernöse Phlegmone."
66 *Experiences in regard to Osteoplastic Trephining of the Skull on account of Brain Tumors. K. Gussenbauer (Vienna).—"Erfahrungen ueber die osteoplastische Schädeltrepanation wegen Hirngeschwülsten."
67 *Thiosinamin in the Treatment of Cicatricial Stenosis of the Esophagus. L. Teleky (Vienna).—"Beitraege z. Mech. und med. (Thiosinamin) Behandlung der narbigen Speiseröhrenverengerungen."

Janus (Amsterdam), February.

68 *A German Precursor of Harvey. R. Landau (Nuremberg).—"Ein deutscher Vorläufer Harvey's."
69 *Was Cleopatra of Egypt a Physician? S. G. Zervos (Athens).—"War Cleopatra von Aegypten eine Aerztin?"

Rivista di Pat. Nerv. e Ment. (Florence), January.

70 Resistance of the Blood Corpuscles in the Aged Insane. G. Obici (Padua).—"Richerche comp. sulla resistenza globulare nei vecchi alienati e nei vecchi normali."
71 *Softening of the Brain Around Certain Tumors. G. B. Pellizi (Sassari).—"Fatti clin. ed ist. in rapporto ai rammollimenti che circondano certi tumori cerebrali."

Nordiskt Med. Arkiv (Stockholm), xxxiv, ii, 4.

72 *Serotherapy. E. von Behring (Marburg).—"Die Serumtherapie in der Heilkunde und Heilkunst."
73 Evolution of Fatty Degeneration. J. Fibiger (Copenhagen).—"Ueber die Entwickelung der fettigen Degeneration."
74 *Pathology of the Sympathetic Nerve. M. Buch (Willmanstrand, Finnland).—"Zur Pathologie des Sympathicus. Die Neuralgie des Sympathicus." (Concluded from No. 3.)
75 *Acute and Chronic Forms of Malignant Endocarditis. K. Thue (Christiania).—"Akute und chronische Formen von maligner Endokarditis."
76 *Sedimentation Process for Study of Sputum. U. Quensel (Stockholm).—"Ein neues Sedimentirverfahren zur Untersuchung von Sputum."

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2. **Varicose Veins.**—The motif of Gould's lectures is that the varicose veins are more in the nature of superabundant development of venous tissue than the result of yielding of veins to excessive intravenous pressure. The following facts lead him to reject the obstruction theory: 1. The age at which varices are first noticed, before the individual growth is complete. The general condition of the patient, who is usually in robust health. The conspicuous absence in cases of varix of the usual symptoms and consequences of venous obstruction. The edema, induration and impairment of function are usually absent and the result of excision of varicose veins and also of the ligature of the main vein would be the most irrational procedure if obstruction were the cause; it would only cause further obstruction to the venous return, and yet there is no clinical fact better tested than the success of both these measures. The influence of pregnancy is also another point in favor of the angeioma theory. Varicose veins often never trouble until pregnancy occurs, and while they may be caused by pressure from the pregnant uterus, it is to be remembered that, entirely apart from any pressure effects, pregnancy produces in some women quite remarkable vasomotor disturbances that are not necessarily the result of pressure of the enlarged uterus. The sex-incidence of varix is another point. There is no reason why man should be more liable than woman. On the obstruction theory we should expect to find the greatest sufferers among women, but the reverse is the case; leaving entirely out of the question varicocele, the number of men exceeds women by the proportion of three males to two females in his own statistics. Before saying why varicose veins are venous overgrowths, he thinks it is well to ask if there is any evidence that the growth of the veins of highly specialized structure ever occurs in the adolescent or adult life, and he reports cases which seem to him to indicate this possibility; that is, the occasional development in the adult of what may be classed as venous angeioma. Admitting the possibility of such development, what evidence is there to support the view that varix is a form of this venous angeioma? 1. In the first place, he says we occasionally meet with cases in which we have a combination of undoubted venous nevus and varix, and he notices instances. 2. The capricious irregular distribution of varices. Sometimes it is the whole saphena from the groin to the instep that is enlarged, the tributaries being intact; then it is a small section of the vein. The extreme irregularity and variation in the seat or extent of the affection seem to mark it out as overgrowth of the venous tissue, errors of development often showing such occurrence. Again, the early age at which varices develop is another interesting fact and their heredity is a recognized factor. The striking innocuousness of varicose veins is also in favor of this view. They persist quite unaltered for many years and certainly are much less troublesome in the latter than in the earlier years of early adult life. This fact is, he holds, more compatible with the view that they are exaggerations of a normal physiologic

structure rather than the result of pathologic processes. The last point he makes is the minute structure of varicose veins. It is often said that the walls of the varix, which may be very thick, are almost entirely of fibrous tissue, but that has not been his experience. There is usually also with the growth of the tissue a failure of the valve apparatus which has much to do with the production of the condition. The public have a very exaggerated notion of the gravity of varicose veins. He believes their effect on the nutrition of the part is very small and what is called varicose ulcer often occurs in perfection in limbs without significant varix. Its cause must be sought for elsewhere. The most frequent ill-effect is a sense of fulness of the whole part due to aching of the vein, caused by prolonged standing or walking, more frequently in hot climates. This is the only frequent ill-effect. Rarely we find a thrombosis in the varix, or still more rarely the vein bursts or is ulcerated into and causes hemorrhage. Where varicose veins do not trouble the patient he need not trouble himself about them, but in a young woman with large varices it is wise to have them treated before marriage and pregnancy. Young people of either sex ought to have them treated before going to live in a hot climate. He has employed of late the Trendelenburg operation in the treatment of these conditions. It has the advantage of being a simple procedure, rarely requiring more than five minutes. Gas and oxygen are often the only anesthetics needed. The saphena vein can readily be found by remembering that it lies a finger breadth to the inner side of the common femoral artery, the pulsation of which can be easily felt in the groin. He prefers to expose the vein by oblique incision from one and a half to two inches long, parallel with the fold of the groin and having its center over the vein. It is found between the two layers of the superficial fascia; it is cleared and a double ligature is placed on it, one thread being tied as high up as possible, the other about two inches lower down, the intervening portion of the vein is cut out. The wound is closed by a few points of suture and sealed by collodion dressing. The patient usually gets up on the eighth day and can leave the hospital two days later. He thinks it a simple and safe proceeding and one that is very useful in nearly all cases of varix, and frequently leads to shrinking or even disappearance of varices and exerts a strong influence in preventing thrombosis. Its good effects are most pronounced where regurgitations into superficial veins are most marked. "Its superiority to excision of varices is greatest in cases of widely distributed and numerous varicose veins, for it exerts its influence upon all the veins emptying into the saphena trunks. It is therefore useful in those widely distributed, even general, varicosities of the lower limbs for which excision is inapplicable. To ensure success the vein or veins must be obliterated quite at their junction with the deep veins. The fact that this operation has such a marked effect upon the course of varix is a strong proof of the important part that valvular defect plays in the history of cases of varicose veins."

3. **Premature Whitening of Hair.**—After reporting a case in which the hair turned white in four or five weeks in a paranoiac, Jones discusses the condition and gives statistics as to his observations in regard to the color of the hair in patients at the Claybury Asylum, and correlates the different types with different emotional conditions. He found light-haired persons were fond of amusement, while the dark-haired ones took more kindly to religious services. He thinks that whatever explanation is offered for the sudden blanching of the hair, which undoubtedly occasionally occurs, the close physiologic connection between the cerebrospinal axis and the skin, which have a common genealogy, must be borne in mind.

4. **Splenic Albuminuria.**—Rolleston has observed cases of splenic enlargement in which rest in bed or the recumbent position produced temporary albuminuria, which disappeared on resuming the erect position. He explains it on Falkenheim's suggestion that in the recumbent position the spleen presses on the left renal vein interfering with the return of venous blood from the kidney and this gives rise to albuminuria. It does not depend, however, on the size of the spleen, for it may be absent when the spleen is very large and was present in two or three of his cases where the spleen was relatively small. It is possible that its occurrence or absence may depend on some condition such as elongation in the condition of the suspensory peritoneal ligaments of the spleen which thus determine or prevent direct pressure on the left renal vein, though anatomic evidence of this is wanting. It is also conceivable that the appearance of albuminuria is dependent on the underlying want of vitality or nutrition of the kidney, which, though not sufficient to induce albuminuria under ordinary conditions, causes it easily when chronic venous engorgement is superadded. In one of his patients albuminuria disappeared from the night urine after the patient had been some time in the hospital and had improved under treatment, and again after a slight attack of influenza the albuminuria reappeared. This hypostatic albuminuria is the reverse of what usually occurs in cyclic albuminuria, but it is possible there may be some cases of cyclic albuminuria in which the albuminuria appears when the patient is lying down and disappears when he is up. He has not, however, met with such a case, but its possibility is suggested by Edel's recent observation that a weak pulse and appearance of albuminuria in the urine in cyclic albuminuria are related and that regular muscular exertion, stopping short of fatigue and strengthening the heart's action, causes the urine to become free from albumin, lighter in color and more copious.

6. **Asylum Dysentery.**—Asylum dysentery, or colitis, which of late years has become a source of much anxiety to British asylum physicians, though not a new thing, has been recently treated by MacDonald by the injection of permanganate of potash. As soon as the case was diagnosed the lower bowel was washed out night and morning with a weak solution, 2 or 4 grains to the pint. The treatment rarely had to be prolonged beyond the third day and even the severer cases recovered. The drug appears to act in its double capacity as a disinfectant and styptic. Milk was not always a satisfactory diet. Mixtures of specially prepared beef tea and specially prepared rice with a liberal allowance of Port wine were largely used. He thinks the results of this method are worthy of being called to the attention of the profession.

7. **Feeding in Gastric Ulcer.**—In this clinical lecture Brunton notices the effects of different food substances on gastric ulcer, particularly the mechanical effects. He says: Supposing we had an ulcer of the back of the hand we would not be likely to treat it with sandpaper or vinegar and pepper instead of water. We should, therefore, avoid food containing hard seeds, small bones, vegetables containing cellulose which act as a brush, stringy meat, or anything that is hard and likely to block the pylorus. Increase of gastric acidity should always be avoided. The longer material stays in the stomach the more acid it is likely to become; hence, we should not feed too much at a time. While milk is an excellent food, yet it may be a stringy food, as he says, when given in large quantities. He mentions a case where a felt-like substance was produced in the stomach in this way. Mixture with lime-water will prevent its too rapid coagulation and its bad effect. There are many substances also that gastric juices alone affect very little, unless they are thoroughly masticated. By careful mastication we can prevent many of the troubles arising from irritating food in the stomach. We can not, however, depend too much on the patient's teeth. Recapitulating, he says: "In cases of gastric ulcer you begin by giving the patient rest in bed, with feeding by the rectum for a few days, then careful feeding by the mouth, while you still continue rectal feeding. The first food given is generally milk in small quantity, a tablespoonful of milk with a tablespoonful of lime-water every two hours. Gradually diminish the lime-water at the same time that you increase the proportion of milk, as the patient will bear it for several days more. Then you may try the effect of custard, which is very mild and non-irritating. Then you may give the patient pounded fish, and perhaps pounded chicken next day. You may give at the same time some chocolate, which I find is very well borne, and makes a great change in the patient's diet, which is otherwise very monotonous and tasteless. Then you will give some of the various foods, etc." In using starch it is important to

mix it up thoroughly and avoid lumps; this can be done by putting it in a little cold water first. The digestion of bread depends largely upon its subdivision and this is one advantage of stale bread, which powders instead of kneading up into a putty-like mass.

11. **Hernia.**—Brook describes a method of dealing with umbilical hernia to avoid the liability to recurrence met with in the ordinary operation where several lines of suture are placed directly over the other, thus making a weakest point which is liable to cause recurrence. He has adopted the following method in two cases of large pendulous irreducible and painful umbilical hernia in enormously stout women. "A long elliptical piece of skin, its long axis in the mid-line, is dissected off the tumor, care being taken to avoid buttonholing the sac where adherent to the skin. The sac is then isolated as far as the edges of the ring and opened by a transverse incision. The contents having been treated in the usual way, the peritoneum is detached all round and well within the ring, especially around the upper segment where the separation is extended at least 2.5 in. beyond the ring border. The two halves of the sac are then shaped into two flaps, each of which is a little wider, and about two inches longer than the diameter of the ring. The shape and size of the sac or accidental buttonholing may render it necessary to make these flaps right and left instead of upper and lower. In that case the sac will have been opened vertically instead of transversely. This was done in the first case. Through the free edge of each flap running sutures of fishing gut are now passed at intervals of 1½ in. or in the case of the upper which is destined to lie within the abdomen at shorter intervals. The ends of each suture are for the time being clamped together with pressure forceps. The two ends of the central suture of the upper flap are mounted on a large semi-circular perineum needle. The point of this, protected by the left forefinger, is carried through the ring and thrust from within out through the whole thickness of the belly wall at a point in the middle line about 2½ in. below the ring. The needle is withdrawn and the two ends again secured by a clamp on the surface. This is repeated with each suture of the upper flap, so that the row of double-ended sutures emerging from the skin forms about two-thirds of a circle whose center is a little below that of the ring. The sutures are now pulled up, care being taken that no overriding bowel is caught between the tightened edge and the parietal peritoneum, and the ends tied firmly together over a piece of lead wire bent to the required shape. The lower flap is now treated in the same way except that the needle with the successive sutures instead of being introduced into the abdominal cavity is made to penetrate the abdominal wall from the space around the upper segment of the ring which has already been prepared by more extensive separation of peritoneum at this point. These sutures are pulled up and secured in the same way as the others and the ring is closed by one or more rows of buried sutures." The result of this procedure is that the weak spot in the abdominal wall is backed by two thicknesses of peritoneum stretched straight and taut across it like a drumhead. He does not claim that this will remove all chances of recurrence, but he thinks it will diminish them. Two cases are not sufficient to draw conclusions from, but he hopes the evidence of its value will be provided by others. It has occurred to him that the same principle might be applied to inguinal and femoral hernia and he has since used it in four cases of the former and two of the latter. The following description of the operation applies to the inguinal variety: "The sac having been isolated from the cord, is cut across immediately above the part which it is intended to leave in the scrotum. A running silk suture is passed across it just above the point of section. The two ends of the suture are threaded on an aneurysm needle. The latter is introduced into the abdominal cavity through the sac, its point being kept in contact with the inner aspect of the wall till it reaches a point 1½ to 2 in. above and internal to the internal ring. Here a little pressure causes it to present beneath the skin. A small incision, one half to three-fourths of an inch in length, through skin and subcutaneous tissue exposes the point closely invested with a little process of peritoneum, together with which it has been readily forced through muscles and aponeuroses. The peritoneum is nicked with the point of a knife, and the small hole slightly stretched with a sinus forceps, and aneurysm needle pushed through. The suture ends are now disengaged, the needle withdrawn, and by traction on the suture the sac is inverted and pulled well through. This is now twisted through one or two turns, the little process of parietal peritoneum pushed back with fine sinus forceps to its proper level, and the sac cut off and the stump fixed by one or two buried sutures. The other structures concerned in the hernia are dealt with by whatever method is preferred; personally, I adopt Bassini's where it is necessary to close them." This procedure does away with the necessity of slitting up the external oblique fascia roofing in the canal. This is a distinct gain where the canal has not been too unduly stretched or where there is no necessity for approximating the conjoined tendon to Poupart's ligament. The chief objections that may be urged are, that without exposing the site of the internal ring it is impossible to so thoroughly detach the neck of the sac from the transversalis fascia as to permit its being drawn sufficiently away from the position of the internal ring. In practice, however, the looseness of these attachments is surprising, allowing, as they do, complete and easy inversion of the sac. It may be objected that perforation of the peritoneum by the inverted sac may result in another weak spot. If, however, the perforation is situated in the muscular part of the wall (that is, through the rectus) and is made as small as possible, and chiefly by stretching rather than cutting, and is pushed well back after the sac has been drawn out so as to leave no funnel-shaped depression, he thinks this objection is more theoretical than practical. The same description suffices and the same arguments hold in case of femoral hernia, the sac being brought out above Poupart's ligament and 1½ in. outside the femoral ring.

18. **Operative Treatment of Non-Tubercular Chronic Nephritis.**—Rovsing has operated on nine aseptic and eight infectious cases of chronic nephritis. He is convinced that whenever there is pain, it is due to compression or stretching of the true capsule of the kidney. He agrees with Lennander that the renal parenchyma has no sensory nerves. This fact was demonstrated by study of kidneys sutured in the wound and also by his ability to operate on the renal parenchyma without narcosis. The capsule, on the other hand, is provided with sensory nerves from the lumbar and dorsal nerves. When it is compressed or stretched, it occasions a constant pain in the lumbar region, very different from the so-called kidney colic, which is in reality ureter colic and is always due to an obstacle preventing the free passage of the urine. Tumefaction and tension of the parenchyma may induce pain by stretching the capsule. The results of his 17 operations harmonize with these views, as in every instance as soon as the pressure was relieved, either by incising the kidney or evacuating an accumulation of pus or fluid, or detaching adhesions, the patients were relieved from their pains. One of his aseptic cases was a diffuse parenchymatous nephritis with intolerable pain in the upper portion of the kidney, palpable tumefaction, and a hematoma between the parenchyma and the capsule. The pains were relieved by mere evacuation of the hematoma. In another case a bilateral chronic glomerular nephritis had lasted for eight years, dating from a typhoid fever. The operation disclosed a perinephritic accumulation between the fatty and the true capsule. Acupuncture and excision of a small portion of the kidney tissue banished the pain. The albuminuria also ceased temporarily but returned later. The third patient was operated on for a suspected melanosarcoma as the cause of the hematuria from the left kidney noted by the cystoscope. The patient died the second day and both kidneys were found affected with diffuse hemorrhagic nephritis. Cystoscopy therefore may lead to a mistaken diagnosis, as in this case. It also shows that surgical intervention is dangerous in such cases, as, instead of arresting the hemorrhage, it is liable to induce violent hematuria, anemia and uremia. The results do not encourage intervention in any case of bilateral nephritis, even when restricted to merely incising the kidney. The fourth

patient was relieved of violent attacks of pain in the upper kidney region, by detaching a number of thick, fibrous adhesions. The kidney showed evidences of chronic nephritis from compression, suggested also by the preceding tedious hematuria. The kidney was incised and the intervention cured both the pains and the hematuria. In four other patients the interstitial nephritis and fibrous perinephritis observed evidently resulted from a uric or oxalic acid diathesis. The cases described in the literature as "nephralgia" or "hematuric nephralgia" probably belong in this category. His patients all suffered from paroxysmal attacks of pain in the kidney region. Hematuria usually accompanied these attacks, macroscopic or only to be detected with the microscope, which sometimes also revealed crystals of urates or oxalates. Under treatment of the uric or oxalic acid diathesis with mineral water or alkalies, the hematuria and the crystals may vanish, but the attacks of pain persist, thus demonstrating that they are not connected with the passage of crystals or sand. The operation will disclose adhesions between the capsule and the surrounding tissues and detachment of these will relieve the pain and cure both pain and hematuria. In one case of pains and hematuria a partial hydronephrosis was found in the upper portion of the kidney, due to compression by a cord-like vessel which ran across the rear surface of the kidney. All the disturbances ceased after this cord had been divided. Study of the eight infectious cases shows that the clinical and anatomic picture may be identical with that presented by the aseptic forms. It is therefore necessary to make a bacteriologic examination of the urine even when there are no symptoms but pure hematuria or nephritic albuminuria. Nephrolysis alone is sufficient in case of aseptic nephritis, with or without perinephritis. It puts an end completely to the pains and affords favorable conditions for the restoration to normal of the organ affected. Incision is unmistakably indicated in certain cases to open and drain a suppurating or congested region. Incision of the kidney seems to affect hematuria favorably when it is due to attenuated infection from the colon bacillus, while it is liable to prove dangerous in violent and virulent infections. In a case of the latter kind due to the staphylococcus aureus, he had to remove the kidney fourteen days later on account of excessive hemorrhage. His experience shows that chronic, infectious nephritis may be unilateral; also, that it may be restricted to a certain portion of the kidney; also, that a partial infectious nephritis may occur simultaneously in both kidneys. Infectious nephritis may resemble in every respect, clinically and anatomically, the familiar types of large white kidney, contracted kidney, etc.

23. **Chloroform in Heart Disease.**—In the discussion which followed Huchard's communication, reviewed in this department last week, the physicians and surgeons who took part agreed with the speaker that there is no more danger from chloroform in case of a compensated mitral defect than with the heart intact. Bucquoy ascribes death under chloroform to reflex action on the centers of respiration and circulation. The heart has little primarily to do with it. The majority of cases have occurred in subjects with sound hearts. Lucas-Championnière administers the anesthetic on this principle, starting with a few whiffs of ethyl bromid to deaden the reflexes. As soon as the mucosa feels numb, chloroform is substituted. Le Dentu remarked that Huchard's conclusions represent the average opinion of most surgeons nearly everywhere now, as it has been tentatively established of late. But he considers the prognosis of the anesthesia a little aggravated on the whole by the possibility of surprises during the anesthesia or of accidents later, which careful investigation will sometimes trace to alterations in the parenchyma of the heart. He urges closer study of the deaths that occur a few hours or days after the anesthesia, believing that they are due to the heart in many instances. He observed that cases of unsuspected heart disease are actual traps for the surgeon. He quoted Finney's experience in 142 narcoses on subjects with heart disease. He found that it was well borne in cases of valvular affections, while myocarditis required especial surveillance. Bucquoy and others called attention to the greater tendency to syncope and sudden death in cases of lesions of the aortic orifice.

30. **Pathogenic Unity of Dysentery.**—Moreul and Rieux found the bacterium isolated by Roger, in every case of dysentery, mild or severe, nostras or exotic, and always in much larger numbers than the associated bacteria. It resembles the colon bacillus, but does not produce indol from albuminoids. It has a specific agglutinating power and the serum of a horse immunized against it acquired bactericidal and antitoxic properties against it and its toxins. They have not yet applied the serum on man, but anticipate favorable results from its local application in a high intestinal injection. They appeal to persons living in localities where dysentery is endemic to cultivate and study this specific germ of dysentery.

31. **Otitic Origin of Asymmetry in Facial Expression.**—Lannois and Pautet noticed that in their experience unilateral slight facial paresis could always be traced to some lesion of the facial nerve from inflammation of the middle ear, sometimes long past and forgotten and sometimes recent.

34. **Difficulty of Differentiating Between Incipient Pulmonary Tuberculosis and Certain Localizations of Arthritis.**—Grasset is convinced that many cases of tuberculosis in the early stages supposed to be cured by sanatorium treatment were in reality merely the pseudo-tuberculosis which he describes. The arthritic diathesis generates auto-intoxication, and this in turn may induce a proliferation of tissue, especially of connective tissue, at points naturally weak or temporarily injured by the morbid products. The infiltration of connective tissue may happen to locate in the apex; the lung tissue becomes solidified and false membranes form on the pleura. This is particularly liable to occur, Grasset thinks, when some cutaneous manifestation of the arthritism has been cured too rapidly by external maneuvers or has suddenly healed. The pulmonary lesion simulates all the signs of incipient tuberculosis, and there is in addition, in many cases, a pain in the supraclavicular fossa during efforts at defecation. A concomitant bronchitis may still further obscure the diagnosis and the sputa even may be blood streaked, especially in young girls. Tuberculin would decide the question, but he considers this too dangerous a procedure for general use. He has witnessed very grave accidents from its use. More than this, he adds, every toxin in subcutaneous injection causes a congestion at the points of weakened resistance and may thus add to the signs in the lungs. The personal and hereditary history is most important for the diagnosis and the urine is always more acid in neuro-arthritic subjects than in those predisposed to tuberculosis. Arthritis may be due to an excess of assimilation or to insufficiency of disassimilation. In the subjects predisposed to tuberculosis, on the other hand, the assimilation is defective and disassimilation is excessive. Consequently, the treatment adapted to one class is directly injurious in the other.

35. **Strict Milk Diet for Adults.**—Lépine remarks that the physician can make his patients take on or lose flesh and can strengthen or debilitate them on a milk diet. This is possible when the composition of the milk is known. The dynamic value of the milk should be determined, bearing in mind that 1 gm. of proteids produces about 9 calories; 1 gm. of fats more than 3, and 1 gm. of sugar or starch about 4. The chief advantage of the milk diet is that it does not stimulate nor excite the mucosa of the digestive organs. It is therefore especially valuable in certain diarrheas and dysenteries. In liver affections milk is also useful, but it should be skimmed and diluted with an alkaline water in case of icterus. If preferred sweetened in such cases, glucose, or some other carbohydrate is preferable to cane sugar on account of the levulose formed from the latter.

37. **History of Gelatin as a Hemostatic.**—Miwa quotes the works of a Chinese physician dating from 204 to 219 A. D., in which gelatin is recommended as a hemostatic for all kinds of hemorrhage. It has been in use ever since for this purpose in China and for a thousand years in Japan. It was applied in an aqueous solution or as a powder, usually combined with other substances. It also enjoyed a reputation as a regenerator of the blood.

38. **Proposed Operative Treatment of Sciatica.**—Baracz has been studying Fajersztajn's "crossed sciatic sign." When the leg is flexed, the hip can also be flexed without pain in cases of sciatica, but if the leg be held straight, flexing the thigh is very painful. He called attention to the fact that flexing the sound thigh with the leg straight on the sound side, causes the same pain on the affected side. Pulling on the sound nerve draws on the diseased nerve and induces the pain, especially in case of adhesions at or near the emerging points of either or both sciatic nerves. Such adhesions are liable to form after inflammatory processes, and Baracz thinks that it may be possible to cure certain obstinate cases of sciatica by attacking the emerging point itself, instead of the nerve farther down. He therefore proposes as an improvement over the usual method of stretching the sciatic nerve, to expose it at its emerging point, detach all the adhesions found in or near the foramen, and stretch the nerve or not, as deemed advisable.

39. **Renal Colic, Renal Hemorrhage and Nephritis.**—Israel replies to Senator's article on this subject, of which an abstract was published in this department last week, that his intervention, incision or splitting the kidney, was successful in all but 2 out of his 11 surviving patients. Six have been permanently delivered from their pains and hemorrhages. In the seventh case they vanished completely on the side affected, but have since recurred on the other side, showing that the affection must have been bilateral. In 2 other cases the pains were banished for twelve and eighteen months, but then returned. The intervention was thus able to free 9 out of 11 persons after the failure of every known medical measure. On the other hand, 3 out of the 14 operated on have died. When we are able to diagnose with certainty beforehand and exclude severe bilateral nephritis, the intervention—limited to mere incision—will be so insignificant that the possible danger will be minimal and the advantages to be gained far outweigh it. The traumatic irritation from the incision may have a favorable influence in accelerating the retrogression of a chronic inflammatory process in the same way as we inject an irritating substance into a chronic synovitis. He found evidences of an inflammatory process in 85.4 per cent. of his 14 and 2 later observed cases, although the microscope was required for its verification in a few. He thinks that time and experience have amply confirmed his assertion that certain cases of renal colic and hemorrhage are the consequences of chronic inflammatory processes in the kidney and that these processes can be induced to heal by incision of the organ. He noted adhesions between the renal capsules and adjoining parts only in a few of his cases and observes that such adhesions do not cause pains unless they fasten the kidney in an abnormal position and thus hinder the outflow. Formation of adhesions is one of the aims of nephropexy. [In the general discussion of the subject in the Society for Internal Medicine, reported in the same number of the *Wochenschrift*, Klemperer, Casper and Zondek cited numerous cases bearing on the points discussed. The latter thinks that an angioneurotic origin for the hemorrhage should not be advanced until the entire kidney and ureter down to the bladder have been thoroughly examined for hidden calculi. Senator reiterated that incision of the kidney is an important progress as a means of diagnosis, but is never indicated as a therapeutic measure except in cases of threatening anuria, whether the latter be the result of some palpable obstacle to the flow of urine or the consequence of violent inflammation and swelling of the renal pelvis.—ED.]

40. **Albuminuria Induced by Massage in Nephritis.**—Ekgren reports tests which demonstrate that the albuminuria increased very much in patients with nephritis under the influence of general massage. The elimination of albumin through the kidneys is more or less of an irritation for the organ, and consequently general massage should be ordered very cautiously in cases of nephritis. He found, also, that gymnastic exercises of the legs and arms had a somewhat similar effect in increasing the albuminuria, equally marked when the exercises were restricted to the arms alone. The body seemed to become accustomed to the effect of the massage in time.

41. **Etiology and Treatment of Pruritus Vulvae.**—Seeligmann has been able to isolate and cultivate a diplococcus from all his cases of pruritus vulvæ during the last ten years. It resembles the gonococcus, but takes the Gram stain and differs also in its method of growth. He found that 10 per cent. guaiacol vasogen killed the cultures of the diplococcus in five minutes, which confirmed the almost invariable success of this salve in his clinical experience. He has the vasogen applied on cotton at night, repeated for several evenings if necessary, and has thus succeeded in curing many cases of secondary and primary true pruritus. If the 10 per cent. strength of the guaiacol vasogen is not sufficient, he uses a 15 or 20 per cent., but avoids this when possible, as it is liable to irritate. If the pruritus returns later, one or two applications of the vasogen will usually dispel it.

42. **Surgical Treatment of Lung Disease.**—Quincke proclaims that non-tubercular pus pockets in the lungs should be operated on early and not be allowed to pass into the chronic stage. The duration of the lesion is more important than the presence or absence of putridity, which is merely a secondary symptom that may appear and disappear. An abscess that forms around a foreign body is almost invariably putrid, and its removal is urgent even without a definite diagnosis. (See THE JOURNAL of December 28, 1901.) In most of the cases on record the foreign body was not found at the time of the intervention, and was expelled or coughed up later. In case of tuberculosis, nothing is accomplished by merely opening up the cavity. Such an abscess has no chance of healing unless the walls of the thorax over it are rendered flexible by resection of a portion of a rib. The walls of the abscess, disseminated with tubercles, have not sufficient vitality for any task beyond that of elimination and encapsulation of the focus. These processes can be materially promoted by relieving the tension, which relatively immobilizes the lung beneath. The favorable effect of such relief from participation in the movements of breathing is shown in cases of compression of a tubercular lung by a pleural effusion or pneumothorax, which sometimes arrests the disease process. It is possible that the improvement which often follows a pregnancy or a rest cure may be due to the more superficial breathing. Evacuation of the pus is of far less importance for the healing of a tubercular focus than the immobilization of the part. Bier and C. Spengler have reported great improvement after resection of the rib, without entering the focus. The latter has a patient permanently cured for twelve years by this procedure. He has performed it a number of times and resects at least 20 to 25 cm. of the rib, close to the spine. He attributes his success in great part to concomitant measures, especially inhalation of a substance to keep the air passages sterile. In the diagnosis of a tubercular lesion, the location and size of the cavity are of less moment than to determine whether it is circumscribed, unilateral or restricted to the upper lobe alone. In the latter case immobilization of the lung by thoracoplasty may lead to the encapsulating and healing of the tubercular focus.

43. **Surgical Treatment of Lung Disease.**—In case of a single, circumscribed focus in the lung, with fair general condition, Garré opens it up widely and drains or tampons if there are evidences of stagnating secretions and febrile septic manifestations. He opens up extensively and resects the infiltrated portion of the lung tissue with ample thoracoplasty in the rare cases of isolated cavities and tubercular foci in the lower lobe. He advocates mobilization of the thorax wall and pleura in case of a single established cavity in the apex. It can be accomplished by resection of the first three ribs without opening the pleura, or by resection of the second rib with pleurotomy and detachment of the adherent apex, or by an artificial pneumothorax, according to Murphy. About 96 cases of actinomycosis have been operated on according to the records, and 87 per cent. have been cured; 122 cases of gangrene of the lungs with 66 per cent. cured. Only 20 to 25 per cent. recover under internal treatment. In 57 cases of bronchiectasia, 46 were cured. In 34 cases of a tubercular focus the cavity was drained, but without much effect on the course of the disease. He urges

that operative intervention should be performed in case of bronchiectasia before the transition into the chronic stage. Only 25 per cent. of the echinococcus cysts treated by puncture alone recovered, while 90 per cent. of 79 cases treated by incision and evacuation were cured. The large proportion of recoveries in these various interventions demonstrates that pneumotomy in itself is not a dangerous operation. There are about 400 on record and 300 of the patients were cured from their ills.

44. **Operative Treatment of Gangrene of the Lungs.**—Lenhartz reports 23 cases of gangrene of the lung treated by resection of ribs and pneumotomy. There has been complete and permanent recovery in 11; 3 have died since from tuberculosis, 3 from sepsis and 1 from general debility. He operates in two sittings, as it is impossible to suture the pleura, and union has to be accomplished by vigorous compression. He warns against exploratory puncture. It entailed empyema in at least one of his cases.

47. **Attempts to Disinfect the Small Intestine in Man.**—Mieczowski utilized the opportunity afforded by several intestinal fistulæ at Mikulicz's clinic to study the action of various disinfectants. He found that the pure juice of the small intestine had no bactericidal action. Of various disinfectants ingested per os, menthol displayed a weak disinfecting power when it reached the intestine. Itrol and bismuth proved entirely negative. The one test with tannopin showed that the bacteria were reduced from 160,000 to 21,000 in twenty-four hours and to 16,000 in forty-eight.

51. **Histogenetic and Comparative Study of Malignant Tumors.**—Among the facts cited by Disselhorst is that in 262 cases Fröhner never noted carcinoma in dogs under 2 years of age. About 87 per cent. were more than 5 and 54 per cent. more than 7 years old. Malignant tumors are not rare in herbivorous animals. They have been found in dogs as 4.7 per cent. of all diseases; in cattle in 2 per cent., and in horses in 1.3 per cent. Sarcomata predominate in horses and cattle, carcinomata in dogs. In the latter, carcinomata form clinically 40 and anatomically 52 per cent. of all tumors; in horses sarcomata form clinically 21 and anatomically 47 per cent. of all tumors, and the proportion in cattle is respectively 27 and 37, while for carcinomata it is only 2.7 and 8 per cent. These figures are based on 86,113 horses, 85;537 dogs and 4972 cattle, treated at the Berlin, Munich and Dresden veterinary colleges. An interesting fact noted was that the percentage of malignant tumors among horses at Berlin was only .9, while at Munich it was 2.1 and at Dresden 2.5 per cent.

53. **Ambulant Treatment of Tubercular Joint Disease of the Legs.**—Wagner considers Hessing's glue bandage under the fixation apparatus the ideal combination for ambulant treatment of joint affections of tubercular origin. He follows Hessing's instructions as proclaimed in his recent work "Der Kriegsapparat." One of the principal advantages of this combination is that the apparatus can be removed and the patient take salt baths while the limb is still immobilized in the glue bandage.

54. **Position of Patient in Operating on Biliary Passages.**—Berndt places a hard bolster, 12 to 15 cm. in diameter, under the back of his patient in the dorsal decubitus, beneath the last thoracic and the first lumbar vertebræ. This enlarges the field of operation in a most surprising manner in all interventions on the biliary passages.

56. **Ergotin as a Prophylactic and Specific in Puerperal Fever.**—Solt points out that as the uterus contracts under the influence of ergotin, the walls become thicker, harder, the lumen of the vessels is partially or entirely closed and the surface becomes drier. This change offers far less favorable conditions for bacterial invasion than when the walls are soft and moist and all the blood and lymph vessels are gaping. Micro-organisms find it more difficult to penetrate the walls of the uterus and pass into the general circulation, and a rampart is thus interposed between a focus in the uterus and the rest of the organism, and between a focus in the vagina, rectum or perineum and the uterus. Hager recommends ergotin as a means of forestalling absorption of purulent matters and Solt makes a routine practice of administering it in every affection inducing inflammation and suppuration, in cases of infected wounds, phlegmons, etc., with pyemic and septicemic symptoms. He gives ergotin instead of alcohol, and the stimulating effect is so pronounced that the patients ask for it. He recommends it internally before all operations on feeble patients, on account of its tonic properties. He has administered it in 30 cases of puerperal fever in the last seven years, and never lost a patient except one from an intercurrent dysentery. When the birth is proceeding normally, he gives two or three powders a day of .6 ergot until six have been taken, and has never known puerperal fever to develop after this prophylactic measure. In case of uterine hemorrhage, he supplements it by rectal injections of cool salt solution, with one teaspoonful of salt to the liter, or fresh milk with half the amount of salt. The uterus seems to contract with exceptional vigor under the influence of the milk injections. Rectal injections have more effect on the uterus than vaginal. After an operation, when the pulse or temperature is suspicious, he administers ten to twenty drops three times a day of a mixture of 5 gm. each of ergotin and distilled water, in 15 gm. of tincturæ amaræ. Another formula is 5 gm. ergotin to 20 of aq. menthæ pip. This is equivalent to about .1 to .18 of extract of ergot to the dose. He has witnessed chronic headaches vanish under systematic treatment with ergot. It has also proved effective as an adjuvant to the bromids in epilepsy, and has relieved the cough in recent laryngeal catarrh better than narcotics.

62. **Disinfecting Soaps.**—Tonzig's tests in regard to the disinfecting power of medicated soaps have convinced him that the only benefit to be derived from them is the pecuniary profits for the manufacturers. He devoted his attention mostly to the creolin soaps and found that the disinfecting power of the creolin was neutralized in its combination with the soap.

63. **Carbolic Treatment of Septic Processes.**—Chlumsky thinks that Phelps' method of applying pure carbolic acid to infected wounds and septic processes is rather too heroic. He calls attention to his somewhat similar but less dangerous practice of pouring into the wound a mixture of equal parts of pure carbolic acid and camphor. The oily fluid is not wiped off and is merely covered with gauze and oiled silk. It does not corrode when poured on the hand, and he has never observed any symptoms of intoxication, although he has used it extensively in more than fifty cases of erysipelas and infected wounds. He is convinced that the erysipelas yields much more rapidly under this than with any other treatment he has ever tried. It has proved equally effective in reducing the temperature in cases of infected wounds. The carbolic odor is masked by that of the camphor.

64. **Radical Operation of Hypertrophied Prostate.**—Roth reports twelve cases of hypertrophied prostate operated on by Bottini's method, with 9 patients cured, one improved, one unaffected and one death. The only contra-indications he admits are affections of the renal parenchyma in an advanced stage, and cachexia. He has operated in mild cases of nephritis without aggravation of the renal process. His patients were between 52 and 76 years of age. He advocates early intervention without waiting for complications to develop by wasting time on palliative measures.

65. **Phlegmon Around Hernia.**—Lottheissen adds three cases to the two reported by Nicoladoni in which a phlegmon developed around and outside of an old, easily reduced hernia. The patients were between 40 and 74, three men and two women. Suddenly, for some reason, the hernia became irreducible and symptoms of inflammation developed. The symptoms differ from those observed when the appendix is included in the hernia, as in the latter case the syndrome is more that of incarceration. The treatment can be only the incision of the perihernious phlegmon. It is perhaps wiser to postpone the incision of the sac to a second operation. As there are no symptoms of incarceration, delay is possible. When the phlegmon is healed the hernia should be cured in order to prevent recurrence of the trouble. One of Nicoladoni's patients

had a recurrence of the phlegmon, probably from a repetition of the same cause.

66. **Osteoplastic Trephining of the Skull on Account of Brain Tumors.**—Gussenbauer reports ten cases from his clinic and seven in private practice in which he attempted to remove a brain tumor by trephining. The wound healed by primary union in every case, and only one death could be ascribed to the operation. This was due to after-hemorrhage induced by excessive restlessness of the patient. Another patient died ten days later from pneumonia. In every case the headache was relieved and choked disc subsided temporarily or permanently, thus improving the sight unless amaurosis was complete. The motor and sensory disturbances in the face and limbs were also partially relieved. Contralateral paralysis frequently appeared after the operation, but was always transient except when due to extensive removal of the cortical motor regions. He uses the Gigli wire saw and the chisel, cutting the bone slanting. His experiences are described in detail. They harmonize in general with those of others, confirming the difficulty of curing the patient by the removal of a brain tumor, even in cases in which localized symptoms indicate a focus in the motor region of the central convolutions. Well-marked focal symptoms indicate that the region in question is diseased, but not necessarily the existence of a tumor in the strictest sense of the word. Focal symptoms in the motor zone of the central convolutions may prove to be merely the effects at a distance of a deep-seated tumor, as in one case he describes. In one of his cases there was recurrence of a gliosarcoma in three years. The two cases of tumors in the cerebellum in which the diagnosis was confirmed postmortem, had none of the symptoms imputed to such tumors. Gussenbauer consequently refrained from opening the cerebellum. Eight of the patients are still living. Comparative improvement is noted in several. Relief from the headache was the only result in one case. A good effect was attained in one syphilitic patient. The blindness returned after temporary relief in two or three and there has been a discharge of cerebrospinal fluid from the nose in several. None of the patients can be called fully restored. The article is concluded from the two preceding numbers.

67. **Thiosinamin in the Treatment of Cicatricial Stenosis of the Esophagus.**—Teleky is assistant in A. Fraenkel's Allg. Poliklinik, and reports a number of cases of cicatricial stenosis of the esophagus the result of drinking a caustic. When they were absolutely impermeable, von Hebra injected a solution of thiosinamin, which has a marked effect in softening cicatricial tissue by favoring the flow of lymph. The results were surprisingly satisfactory in some cases, although not in others, and study of the details shows that the drug has a marked softening effect on old cicatricial tissue. Recent cicatrices are loosened at first and then swell. Newly formed cicatricial tissue breaks up completely under its influence. This was shown most conclusively in one case in which a healed gastric fistula became loosened and the stomach wall separated from the abdomen under the influence of the thiosinamin which was being administered to render the stenosis of the esophagus permeable. The result was fatal to the patient. In comparatively recent cicatricial stenosis, the effect at first was marked improvement, but this was soon followed by a swelling of the parts and consequent aggravation of the preceding condition. In two cases in which the cicatricial tissue was several years old, the patients were permanently relieved from their previous ills and could eat and swallow with ease, the esophagus becoming permeable for a 21 sound. Hebra has distinctly warned against the application of this drug in all cases of partially healed tubercular or other foci. He has witnessed cases in which the cicatricial encapsulation was loosened and the process fanned into a flame by its administration. He also points out that its action in driving the lymph through the tissues favors metastasis of malignant tumors. It also has an unfavorable effect on all inflammatory processes for the same reason, especially those in the eye. Old cicatricial tissue in the eye, on the other hand, has been loosened and vision much improved in a number of cases in his experience. It merely loosens the tissue and renders it elastic, so that mechanical stretching, previously impossible, can then be accomplished. Active movements of a joint after the cicatricial tissue has been loosened accomplish this purpose, as does also the passage of food in the esophagus and progressive sounding.

68. **A German Precursor of Harvey.**—Landau attributes the discovery of the circulation of the blood to Helvicus Dietericus, a prominent German physician who died in 1655. In 1622 he suggested the possibility of the circulation of the blood as he observed it in dogs, to his teacher, Caspar Hofmann, but the latter ridiculed the idea, and Dietericus did not insist.

69. **Was Cleopatra of Egypt a Physician?**—Zervos has unearthed old documents to prove that Cleopatra was the author of several works on medical subjects. They show a thorough understanding of the theme, he remarks, rare powers of observation and enviable conciseness of statement. Her "De Morbis Mulierum" includes good descriptions of "phlegmons of the uterus," displacements, etc. She observes that hemorrhoids are rare in women, but processes resembling them are frequent in the cervix. She lived at the time the Alexandria school was at the zenith of its fame and may have taken a medical course there. It only required six months. She killed herself, according to Galen, in the most scientific manner by having the asp's poison poured into a wound in her arm. She also embalmed Antony's body with a dexterity showing great anatomical knowledge. Zervos refers also to several Latin works dating from 1586, 1597 and 1612, which quote from her writings.

71. **Softening of the Brain Around Certain Tumors.**—Pellizi describes the clinical and postmortem observation of a tumor in the frontal lobe surrounded by extensive softening. The vessels seemed to be normal in the vicinity of the tumor and the softening was too extensive to be due solely to compression by the tumor. He attributes it to the pressure of the cerebrospinal fluid which was under very high tension. The white brain matter was not able to resist the pressure and gradually became compressed, softened and destroyed.

72. **Serum Therapy.**—This is the address delivered by Behring as the recipient of one of the Nobel prizes. The main points were mentioned in THE JOURNAL of January 4, p. 45.

74. **Neuralgia of the Sympathetic.**—Buch examines the patient in the dorsal decubitus when he surmises hyperesthesia of the sympathetic nerve. The abdominal aortic and superior and inferior hypogastric plexuses are particularly valuable for this purpose, as they can be compressed against the spine and are thus easily irritated, while the resulting pain can not be ascribed to any organ. In the physiologic condition the sympathetic is not sensitive, but when it is irritated the pain resembles somewhat labor pains, or dull colic, accompanied sometimes by other pains which have the character of surface pains, smarting, burning or cutting, etc. There are frequently pulsating pains and girdle sensations. Pyrosis may be sometimes induced by pressure on the hyperalgesic lumbar sympathetic. The radiating pains in stenocardia, gastralgia and enteralgia and many of the morbid sensations of neurasthenic and hysteric patients are due to hyperesthesia of the sympathetic. When pressure on the sympathetic reproduces the spontaneous attack, the diagnosis is certain. The cases are especially interesting in which the entire symptom-complex accompanying a gastralgia, for instance, can be reproduced by irritating the sympathetic. It is sometimes possible to abolish temporarily or permanently the entire syndrome by a single subcutaneous injection of antipyrin. Neuralgic symptoms involving the spinal nerves and headache from radiation of pain from the cervical sympathetic are among the most common manifestations of hyperesthesia of the sympathetic.

75. **Acute and Chronic Forms of Malignant Endocarditis.**—Thue attributes not only the fulminating but the insidious chronic cases of malignant endocarditis to pyemia. The infectious agent in the blood is therefore the necessary factor in all the various forms. He describes 5 acute cases in detail, including two that occurred in the course of a severe pneumonia, the pneumococci being numerous in the blood. The others were due to the streptococcus. He also describes 4 cases of the chronic form which show that there is no longer cause

for a sharp distinction between benign and malignant endocarditis, between the ulcerative and the verrucous—all are merely various phases of the same process. The chronic cases ran a course of four and one-half to eighteen months, fever alternating with long afebrile periods. The temperature curve was irregular even when within normal limits. Auscultation showed that the affection was unmistakably progressive. Frémissement was noted in one case. One patient had a history of articular rheumatism, and one of endarteritis with atheromatous degeneration. The joints were not affected in any of the cases, but in two there was an acute hemorrhagic nephritis with hemorrhagic pemphigus and herpes. In the other patients there were no symptoms on the part of the kidneys or skin, but one exhibited a hemorrhagic pleuritis, becoming later purely serous, with a hemorrhagic infarct in the lung. All the patients presented an extremely anemic aspect. No cultures could be derived from the blood during life in either of the cases, but the staphylococcus aibus was found numerous in the endocarditic processes in one and an indeterminate bacterium in the other two cases in which autopsy was permitted. Three of the patients were men between 21 and 50, the fourth a boy of 9.

76. **Sedimentation Process for Study of Sputum.**—Quensel adds to the sputum to be examined an equal quantity of a fluid composed of equal parts of 25 per cent. formalin and of 95 per cent. alcohol. The vessel should be of the capacity of about 200 c.c. The mixture is then concentrated in a centrifuge or shaken vigorously for a minute or two and set aside to settle in a conical glass. The sediment is then ready to stain. He uses anilin gentian-violet, decolorizing with hydrochloric acid and alcohol. The elastic fibers can be differentiated in addition by supplementing the above with Weigert's stain in which the specimen is left for twenty to thirty minutes and then decolorized as before, and restained with auramin.

Queries and Minor Notes.

DUCTLESS GLANDS.

BINGHAMTON, N. Y., March 14, 1902.

To the Editor:—Please give briefly the latest accepted views or teachings of the physiology of the thyroid, thymus, spleen and suprarenal glands; also what diseases or marked changes may be ascribed to a change in their functions. M. H. J.

ANS.—The thyroid is a ductless gland, secreting, by way of the lymphatics, a complex proteid containing iodin, to which the name thyro-iodin has been given. Administration of the thyro-iodin or the fresh gland causes a decline in body weight and toxic symptoms, such as tachycardia, vertigo and glycosuria. Degeneration, absence or extirpation of the thyroid causes cretinism and myxedema.

The *suprarenal* is another ductless gland with an internal secretion, the active principle of which has been isolated and called epinephrin by Abel, and adrenalin by Takamine. It stimulates the muscle-fibers of the arteries and heart. Applied locally to the mucous membrane of the nostril or eye, for instance, it causes a temporary contraction of the blood vessels and pallor. Removal of these bodies from animals is followed by death. Change in the suprarenals would accordingly interfere with the tonicity of the vascular system.

The *splenic* functions appear to be the following: 1. The development of white blood corpuscles; also red blood corpuscles during and shortly after fetal life. 2. Storing up of some proteid food to be introduced later into the blood. 3. From the presence of uric acid, xanthin, hypoxanthin and leucin, it is probably engaged in other nitrogenous metabolism.

The *thymus* diminishes after the second year, until scarcely a vestige remains. It is supposed to be a source of colorless corpuscles, and possibly colored corpuscles, in early life. From the presence of xanthin, hypoxanthin, leucin and other nitrogenous compounds, it may have other functions similar to those of the spleen.

THE AUTOMOBILE.

CHICAGO, March 11, 1902.

To the Editor:—Last year, at this season, there appeared in THE JOURNAL several communications relative to the practicability of the automobile for physicians' use. There was considerable diversity of opinion regarding the best motive power; some claimed electricity, others gasoline and steam. No doubt the past year's experience of those using automobiles would prove valuable. As an intending purchaser, I would appreciate the information any reader may be able to give, particularly with reference to the method of propulsion. Yours respectfully, D. C.

New Patents.

Patents of interest to physicians, etc., Feb. 18 and 25.

693,487. Stethoscope. Robert C. M. Bowles, Boston, Mass.

693,637. Filler for capsules, wafers, etc. Arthur E. Brethour, Ottawa, Can.

693,587. Insufflator. Eugenia C. Campbell, San Francisco, Cal.

693,795. Respiratory apparatus. Erich Giersberg, Berlin, Germany.

693,606. Hernial truss. Andrew Hunter, San Francisco, Cal.

693,554. Scarificator for surgical use. Lewis G. Langstaff, Brooklyn, N. Y.

35,749. Design, surgical rubber pad. Wm. P. Richards, Union City, Tenn.

694,102. Preparing alimentary extracts. Edward C. L. Kressel, London, Eng.

694,325. Artificial leg. John A. Peer, Philadelphia, Pa.

694,041. Sanitary shield for telephone transmitters. Jean B. Tauveron, New York City.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. Being a Yearly Digest of Scientific Progress and Authoritative Opinion in All Branches of Medicine and Surgery, drawn from Journals, Monographs, and Text-Books of the Leading American and Foreign Authors and Investigators. Collected and arranged with Critical Editorial Comments. Under the General Editorial Charge of George M. Gould, M.D., Medicine and Surgery. Cloth. Pp. 715 and 684 respectively. Price, $3.00. Philadelphia and London: W. B. Saunders & Co. 1902.

HANDBOOK OF BACTERIOLOGICAL DIAGNOSIS FOR PRACTITIONERS, Including Instructions for the Clinical Examination of the Blood. By W. D'Este Emery, M.D., B.Sc. Lond., Lecturer on Pathology and Bacteriology in the University of Birmingham. Cloth. Pp. 215. Price, $1.50. Philadelphia: P. Blakiston's Son & Co. 1902.

TOXICOLOGY. The Nature, Effects and Detection of Poisons with the Diagnosis and Treatment of Poisoning. By Cassius M. Riley, M.D., Professor of Chemistry and Toxicology in Barnes Medical College, St. Louis, Mo. Cloth. Pp. 121. Price, $1.50. St. Louis: Lewis S. Matthews & Co.

NURSING, GENERAL, MEDICAL AND SURGICAL. With Appendix on Sick-room Cookery. By Wilfred J. Hadley, M.D., F.R.C.P., F.R.C.S., Physician and Pathologist to the London Hospital. Cloth. Pp. 326. Price, $1.25. Philadelphia: P. Blakiston's Son & Co. 1902.

THE ELEMENTS OF PHYSICAL CHEMISTRY. By Harry C. Jones, Associate Professor of Physical Chemistry in the Johns Hopkins University. Cloth. Pp. 565. Price, $4.00. New York: The Macmillan Co. 1902.

ANNUAL REPORT OF THE NEW YORK STATE REFORMATORY AT ELMIRA for the Fiscal Year Ending Sept. 30, 1901. Twenty-sixth Year-book. Illustrated. Paper. Pp. 106. Elmira: Summary Press. 1901.

TRANSACTIONS OF THE LUZERNE COUNTY (PA.) MEDICAL SOCIETY, for the Year Ending Dec. 31, 1901. Vol. IX. Paper. Pp. 204. Wilkesbarre, Pa.: E. B. Yordy Co. 1902.

REPORT OF THE TRUSTEES OF THE NEWBERRY LIBRARY for the Year 1901. Paper. Pp. 26. Chicago. 1902.

SYPHILIS: A Symposium. Cloth. Pp. 122. Price, $1.00. New York: E. B. Treat & Co. 1902.

The Public Service.

Army Changes.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., Feb. 27 to March 5, 1902, inclusive:

Everett A. Anderson, contract surgeon, from Devil's Lake, N. D., to San Francisco, Cal., en route for assignment in the Division of the Philippines.

James K. Ashburn, contract surgeon, from the General Hospital, Presidio of San Francisco, Cal., to duty at Fort Grant, Ariz.

David Baker, lieutenant and asst.-surgeon, U. S. A., member of an examining board at Fort Leavenworth, Kan., vice Lieutenant Herbert M. Smith, relieved.

William B. Banister, major and surgeon, U. S. A., to duty as attending surgeon, Washington, D. C.; leave of absence for one month granted.

Walter K. Beatty, contract surgeon, from Fort Grant, Ariz., to San Francisco, Cal., for duty at the General Hospital, Presidio of San Francisco.

Henry P. Birmingham, major and surgeon, U. S. A., member of an examining board at Fort Leavenworth, Kan., vice Major Charles Richard, surgeon, relieved.

Edward C. Carter, major and surgeon, U. S. A., from duty as attending surgeon, Washington, D. C., to San Francisco, Cal., en route for assignment in the Division of the Philippines; leave of absence for one month granted, to take effect April 1, 1902, with permission to apply for an extension of one month.

R. King Cole, contract surgeon, from Dallas, Tex., to the Division of the Philippines.

Waller H. Dade, captain and asst.-surgeon, Vols., leave of absence for one month granted.

Euclid B. Frick, captain and asst.-surgeon, U. S. A., to report at Washington, D. C., for examination for promotion.

James H. Hallwood, contract surgeon, from the General Hospital, Presidio of San Francisco, Cal., to duty at Fort Leavenworth, Kan.

John Van R. Hoff, lieutenant-colonel and deputy surgeon-general, member of a board at Washington, D. C., to consider the whole subject of the uniform and equipment of officers and men.

Merritte W. Ireland, captain and asst.-surgeon, U. S. A., on his arrival at San Francisco, Cal., to proceed to St. Louis, Mo., for duty as attending surgeon and examiner of recruits in that city.

Frank R. Keefer, captain, asst.-surgeon, U. S. A., to report at Washington, D. C., for examination for promotion.

Clarence J. Manly, lieutenant and asst.-surgeon, U. S. A., on his arrival at San Francisco, Cal., to proceed to Fort Caswell, N. C., for duty at that post.

James H. McCall, contract surgeon, now at Washington, D. C., to proceed to San Francisco, Cal., en route for assignment in the Division of the Philippines.

Frank E. McDermott, contract dental surgeon, now at Webster, Mass., to proceed to Omaha, Neb., for duty at Fort Crook, Neb.

John D. Millikin, contract dental surgeon, now at San Francisco, Cal., to report for transportation to the Division of the Philippines, where he will be assigned to duty.

Charles E. Morrow, lieutenant and asst.-surgeon, U. S. A., former orders so amended as to direct him to report in person to the commanding general, Department of California, for assignment to duty as surgeon on the transport *Hancock*.

Edward L. Munson, captain and asst.-surgeon, U. S. A., detailed a member of the board of officers to examine candidates for admission to the Medical Corps of the Army, vice Captain F. P. Reynolds, asst.-surgeon, U. S. A., relieved.

Bonaparte P. Norvell, contract surgeon, from St. Louis, Mo., to the Division of the Philippines.

Joseph R. Parke, contract surgeon, from Philadelphia, Pa., to the Division of the Philippines.

William W. Quinton, captain and asst.-surgeon, U. S. A., from Fort Ethan Allen, Vt., to San Francisco, Cal., en route for assignment in the Division of the Philippines.

Thomas U. Raymond, captain and asst.-surgeon, U. S. A., to report at Washington, D. C., for examination for promotion.

Robert L. Richards, contract surgeon, now at San Francisco, Cal., to report for transportation to Manila, P. I., and assignment in the Division of the Philippines.

Joseph J. Shafer, contract surgeon, from Washington, D. C., to the Division of the Philippines.

Erwin I. Shores, contract surgeon, on being relieved by Lieutenant C. J. Manly, asst.-surgeon, U. S. A., to proceed from Fort Caswell, N. C., to West Bridgewater, Mass., for annulment of contract.

William H. Spiller, contract surgeon, from the transport *Hancock* to New York City, for annulment of contract.

William J. S. Stewart, contract surgeon, now at San Francisco, Cal., to report in person to the Surgeon-General of the Army for instructions.

Jerome B. Thomas, captain and asst.-surgeon, Vols., having tendered his resignation, is hereby honorably discharged from the service of the United States, to take effect Feb. 27, 1902.

Walter D. Webb, lieutenant and asst.-surgeon, U. S. A., former orders directing him to proceed to Fort Totten, N. Y., so amended as to direct him to proceed to Fort Hamilton, N. Y., for duty.

Marlborough C. Wyeth, major and surgeon, U. S. A., former orders so amended as to require him to report for duty at Fort Ethan Allen, Vt.

The following named lieutenants, asst.-surgeons, U. S. A., upon the completion of the course of instruction at the Army Medical School, Washington, D. C., will proceed to San Francisco, Cal., and report, not later than April 15, 1902, to the commanding general, Department of California, for transportation to the Philippine Islands, for assignment in the Division of the Philippines: Conrad E. Koerper, Robert U. Patterson, Roderic P. O'Connor, Roger Brooke, Jr., Verge E. Sweazey, Matthew A. DeLaney, Paul S. Halloran, Robert Smart, William R. Eastman and Perry L. Boyer. The following will report in like manner, not later than April 28, 1902: Charles C. Geer, Ernest L. Ruffner, George P. Heard, Arthur M. Line, Kent Nelson, Lloyd LeRoy Krebs, William P. Woodall, Charles A. Ragan, George W. Jean, James F. Hall, Raymond F. Metcalfe, and James M. Phalen.

Navy Changes.

Changes in the Medical Corps of the Navy, week ending March 8:

P. A. Surgeon D. N. Carpenter, detached from the *Illinois*, ordered home and granted sick leave for one month.

Dr. W. E. Griffin, appointed asst.-surgeon from Feb. 20, 1902.

P. A. Surgeon H. D. Wilson, ordered to accompany a detachment of Marines, March 8, to the Asiatic Station.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the seven days ended March 6, 1902:

Surgeon H. W. Sawtelle, leave of absence for seven days from Feb. 27, 1902, under paragraph 179 of the regulations.

Surgeon T. B. Perry, granted leave of absence for twenty-three days from February 28.

Asst.-Surgeon Taliaferro Clark, directed to report to chairman of board of examiners at Washington, D. C., for examination to determine his fitness for promotion to the grade of passed assistant-surgeon.

Asst.-Surgeon Hill Hastings, directed to report to chairman of board of examiners at San Francisco, Cal., for examination to determine his fitness for promotion to the grade of passed assistant-surgeon.

Asst.-Surgeon C. H. Lavinder, directed to report to chairman of board of examiners at Washington, D. C., for examination to determine his fitness for promotion to the grade of passed assistant-surgeon.

Asst.-Surgeon John McMullen, directed to report to chairman of board of examiners at Washington, D. C., for examination to determine his fitness for promotion to the grade of passed assistant-surgeon.

Asst.-Surgeon S. B. Grubbs, directed to report to chairman of board of examiners at Washington, D. C., for examination to determine his fitness for promotion to the grade of passed assistant-surgeon.

Asst.-Surgeon F. J. Thornbury, relieved from duty at Port Townsend, Wash., and directed to proceed to Honolulu, H. I., and report to the medical officer in command for duty.

BOARDS CONVENED.

Board convened to meet at Washington, D. C., March 17, 1902, for the purpose of examining assistant surgeons to determine their fitness for promotion to the grade of passed assistant-surgeon. Detail for the board: Surgeon L. L. Williams, chairman; Surgeon R. M. Woodward; P. A. Surgeon H. D. Geddings, recorder.

Board convened to meet at San Francisco, Cal., March 24, 1902, for the purpose of examining Asst.-Surgeon Hill Hastings, to determine his fitness for promotion to the grade of passed assistant-surgeon. Detail for the board: P. A. Surgeon W. G. Stimpson, chairman; P. A. Surgeon H. S. Cumming; Asst.-Surgeon C. W. Vogel, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended March 8, 1902:

SMALLPOX—UNITED STATES.

Arizona: Naco, Feb. 23, 12 cases.

Arkansas: Mississippi County, Feb. 18, 100 deaths.

California: Los Angeles, Feb. 15-22, 6 cases; San Francisco, Feb. 16-23, 18 cases.

Colorado: Denver, Feb. 15-22, 5 cases.

Illinois: Chicago, Feb. 22-March 1, 2 cases; Danville, Feb. 22-March 1, 8 cases; Galesburg, Feb. 15-March 1, 4 cases.

Indiana: Evansville, Feb. 22-March 1, 8 cases; Michigan City, Feb. 17-March 3, 1 case; Indianapolis, Feb. 15-22, 7 cases; Terre Haute, Jan. 11-March 1, 12 cases.

Iowa: Clinton, Feb. 22-March 1, 2 cases.

Kentucky: Covington, Feb. 23-March 2, 6 cases; Lexington, Feb. 15-22, 3 cases.

Louisiana: New Orleans, Feb. 15-March 1, 2 cases.

Maine: Durham, Feb. 15-19, 12 cases; Freeport, Feb. 19, 1 case; Portland, Feb. 8-March 1, 9 cases; Sanford, Feb. 19, 1 case.

Maryland: Baltimore, Feb. 22-March 1, 2 cases.

Massachusetts: Boston, Feb. 22-March 1, 40 cases, 5 deaths; Cambridge, Feb. 22-March 1, 9 cases; Everett, Feb. 22-March 1, 1 case, 1 death; Haverhill, Feb. 23-March 1, 1 case; Holyoke, Feb. 22-March 1, 9 cases; Malden, Feb. 22-March 1, 1 case; Newburyport, Feb. 22-March 1, 1 case; North Adams, Feb. 22-March 1, 1 case; Quincy, Feb. 22-March 1, 1 death; Somerville, Feb. 15-March 1, 6 cases; Waltham, Feb. 22-March 1, 1 case; Weymouth, Feb. 15-March 1, 3 cases.

Michigan: Detroit, Feb. 22-March 1, 2 cases; Grand Rapids, Feb. 22-March 1, 2 cases; Ludington, Feb. 22-March 1, 6 cases.

Missouri: Hannibal, Feb. 1-28, 6 cases.

Montana: Butte, Feb. 16-23, 6 cases.

Nebraska: Omaha, Feb. 22-March 1, 55 cases.

New Jersey: Camden, Feb. 22-March 1, 5 cases, 1 death; Jersey City, Feb. 23-March 2, 19 cases; Plainfield, Feb. 22-March 1, 1 case, 1 death; Newark, Feb. 22-March 1, 24 cases, 2 deaths.

New York: Binghampton, Feb. 23-March 2, 10 cases, 1 death; New York, Feb. 22-March 1, 56 cases, 11 deaths.

Ohio: Cincinnati, Feb. 22-28, 7 cases; Toledo, Feb. 22-March 1, 1 case.

Pennsylvania: Allegheny, Feb. 22-March 1, 8 cases; Philadelphia, Feb. 22-March 1, 62 cases, 17 deaths; Pittsburg, Feb. 22-March 1, 6 cases; Scranton, Feb. 15-22, 1 case.

Rhode Island: Providence, Feb. 22-March 1, 4 cases, 1 death; Warwick, Feb. 22-March 1, 4 cases.

South Carolina: Charleston, Feb. 22-March 1, 2 cases; Greenville, Feb. 15-22, 3 cases.

Tennessee: Memphis, Feb. 22-March 1, 24 cases; Nashville, Feb. 22-March 1, 1 case.

Texas: Houston, Feb. 22-March 1, 32 cases.

Utah: Salt Lake City, Feb. 8-22, 2 cases.

Vermont: Burlington, Feb. 15-22, 17 cases.

Washington: Spokane, Feb. 15-22, 26 cases; Tacoma, Feb. 16-23, 14 cases.

Wisconsin: Fond du Lac, Feb. 22-March 1, 6 cases; Green Bay, Feb. 23-March 2, 10 cases; Milwaukee, Feb. 22-March 1, 2 cases.

SMALLPOX—FOREIGN.

Austria: Prague, Feb. 8-15, 10 cases.

Colombia: Cartagena, Feb. 15, 3 deaths; Panama, Feb. 17-24, 50 cases, 10 deaths.

France: Paris, Feb. 8-15, 3 deaths.

Great Britain: Cardiff, Feb. 1-8, 1 case; Dublin, Feb. 8-15, 3 cases; Dundee, Feb. 8-15, 4 cases; London, Feb. 8-15, 1185 cases, 64 deaths.

India: Bombay, Jan. 27-Feb. 4, 3 deaths; Calcutta, Jan. 11-Feb. 1, 3 deaths; Karachi, Jan. 19-Feb. 2, 34 cases, 8 deaths; Madras, Jan. 25-31, 1 death.

Italy: Rome, Dec. 27-Jan. 4, 2 deaths.

Mexico: Mexico, Feb. 8-16, 1 death.

Russia: Moscow, Feb. 1-8, 20 cases, 6 deaths; Odessa, Feb. 8-15, 1 case, 3 deaths; St. Petersburg, Feb. 1-15, 14 cases, 3 deaths.

Uruguay: Montevideo, Jan. 11-18, 65 cases, 5 deaths.

YELLOW FEVER.

Mexico: Vera Cruz, Feb. 15-22, 1 case, 1 death.

West Indies: Curacao, Feb. 1-8, 1 case, 1 death.

CHOLERA.

India: Bombay, Jan. 27-Feb. 4, 1 death; Calcutta, Jan. 11-Feb. 1, 159 deaths; Madras, Jan. 25-31, 1 death.

PLAGUE—UNITED STATES.

California: San Francisco, Feb. 22, 1 case, 1 death.

PLAGUE—INSULAR.

Hawaii: Honolulu, Feb. 18, 3 deaths.

PLAGUE—FOREIGN.

China: Hongkong, Jan. 11-18, 1 death; Shuitung, Jan. 18, increasing; Young Koong, Jan. 18, 60 deaths.

India: Bombay, Jan. 27-Feb. 4, 538 deaths; Calcutta, Jan. 11-Feb. 1, 193 deaths; Karachi, Jan. 19-Feb. 2, 107 cases, 90 deaths; Madras, Jan. 25-31, 1 death.

Russia: Batoum, Feb. 5, 1 case.